

ISSUED EVERY WEDNESDAY

DRUG & CHEMICAL MARKETS

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VOL IV

NEW YORK, MAY 15, 1918

No. 36

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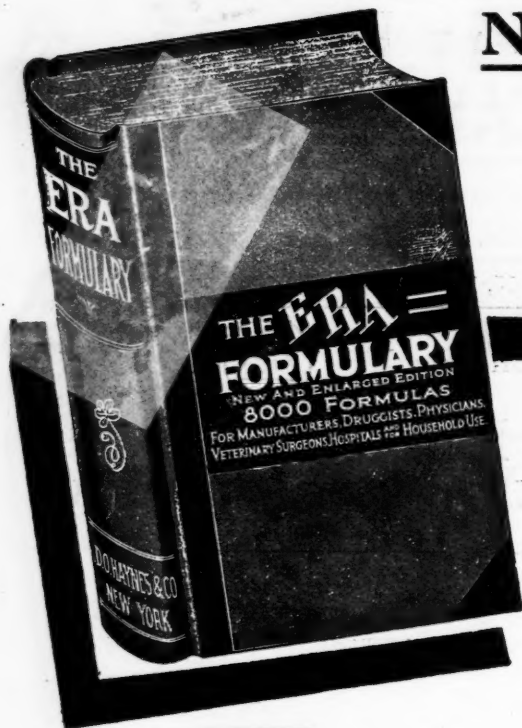
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This book was revised and compiled by William C. Alpers, Sc.D., member of the present Committee of Revision of the U. S. P., and Ezra J. Kennedy, Ph.C., Editor of THE PHARMACEUTICAL ERA, both of whom were pre-eminently fitted for the task by reason of their scientific attainments, long practical experience in the drug business, and their intimate knowledge of pharmacists' and manufacturers' needs for new formulas and processes.

A glance at the table of contents will convince anyone of the scope and usefulness of the book and of its up-to-date character. The arrangement of the formulas is designed for handy reference.

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Price \$5.00 a copy, postpaid on receipt of price

No. 3 Park Place, New York

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A BINDER FOR THIS JOURNAL

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Table of Contents

EDITORIALS—

Concentrating the Chemical Industries	3
We Must Keep That Trade	3
Progress in Dyes	4
The Labor Situation	4
Use of Food Oils Increasing	4

SPECIAL ARTICLES—

Are American-Made Dyes Satisfactory?	5
Census of Chemicals and Colors	9
Germany's Stolen Chemistry—Part IV, by Professor Townes R. Leigh	13

NEWS—

New Colors for the Textile Trade	6
Export Regulations More Stringent	7
Enforcing Explosives Law Strictly	8
France Needs Chemicals for Vineyards.....	11
War Committees Handling Chemicals	11
Many Companies Win Liberty Loan Flag	14
New Incorporations	31

THE FOREIGN MARKETS—

War Burdens Hamper London Trade	16
To Make Quinine in South America	17

MARKET REVIEWS—

Colors and Dyestuffs	18-19
Heavy Chemicals	20-21
Drugs and Chemicals	22-23

PRICES CURRENT—

Drugs, Chemicals, etc., in Original Packages.....	24
---	----

IMPORTS AND EXPORTS	30
---------------------------	----

Concentrating the Chemical Industries

A delay of four years in receiving the report of the Census Bureau on the chemical industries of the United States in 1914 would ordinarily detract from the interest in the facts presented, but the present report will be valuable because it reflects conditions during the year when the war began. Comparison with the developments in 1915, 1916, 1917, and 1918 will amaze the world when these figures are available.

The tables of products used in making sulphuric acid, fertilizers, explosives, dyestuffs and extracts, and the products obtained from the distillation of wood, make interesting study for the manufacturer as well as the dealer and broker. The constant tendency toward concentration of the smaller plants into large organizations is indicated in these statistics. There is a steady increase in the amount of capital invested and the number of employees. It is valuable information that many of the large industries are making their own crude materials whenever possible.

The manufacturer who has seen the industry grow since 1900 will find it difficult to make accurate comparisons because the Census Bureau has broadened the scope of its work and introduced many new features in the present report. The development has gone forward by leaps and bounds since 1914 and the work of the Bureau has increased to such an extent that still further changes must be made in the method of preparing the report to make the statistics of real value to the trade, especially in the sections of dyestuffs, of explosives, and of fertilizers.

We Must Keep That Trade

In the effort to conserve the ships available for foreign trade by refusing permits to export goods to the Far East or other countries to which the voyage is unusually long the Shipping Board is pursuing a policy made necessary by the war. It is evident, however, that commercial interests are suffering. Export trade is dead and South America and the Far East are turning again to European countries for supplies which they began to buy in the United States when Europe was no longer able to deliver the goods owing to war conditions at home. We are losing the business that we gained and the situation will be a difficult one to cope with when peace is established because our demands of payment are more exacting than those of our competitors.

Exception is taken to the custom of demanding payment in New York whether we sell or buy. It

is pointed out that other nations buying crude products in South America make payment at the point of shipment. We wait until the goods are received here. This custom is probably due to lack of facilities for conducting foreign transactions through American banks, especially through local banks where the purchasing factory happens to be located. This difficulty is now in a measure overcome, and other objections made by the foreign buyer will be adjusted before the end of the war.

Meantime, the industries of many rival countries are reviving and goods are being shipped to erstwhile customers from Italy, France and Great Britain with greater facility than from the United States and the old commercial relations are being renewed. Even the Germans, although unable to deliver goods made in Germany, are doing business at the old stand in some neutral countries. They buy English, French, Italian and American goods and in some cases place German labels on the container.

It is sincerely to be hoped that the crisis in the shipping situation will be passed in a few months and that more vessels may be available for trade, not only to relieve the stringency in the markets here and to keep prices from getting beyond control, but also to hold and increase the foreign business which manufacturers have built up under great difficulties. If we have the ships we can do the business. Without ships we cannot deliver the goods and our competitors will get the trade.

Progress in Dyes

American-made dyes were an outstanding feature of the Textile Exposition, and a valuable educational work was done in showing the American people, the ultimate consumers, that our dyestuffs are as dependable as those imported before the war. No other section of the trade exhibit attracted so much attention from miscellaneous visitors and no other part received so much attention from the New York daily press. Several of the papers carried special stories on dyes, the *Evening Post* running an illustrated feature article in their Saturday magazine section, the *Times*, the *Sun*, and the *Tribune* publishing trade interviews from men of standing. This educational work has spread to other cities. The *Philadelphia Ledger* and the *Newark Ledger* have both discussed the progress made in American dye manufacture editorially, and Professor Leigh's articles on "Germany's Stolen Chemistry" have been reprinted from our pages by leading newspapers from *Financial America* in New York to the *Los Angeles Times*.

Pleasant as are the compliments of the general press and important as is the propaganda work to the general public, the dyestuff industry will find greater interest and more solid satisfaction in the frank opinions of their biggest and best customers published in this issue of DRUG & CHEMICAL MARKETS. A buyer writing to a seller may either complain or compliment for ulterior purposes, and it has been difficult for the dye manufacturers to know exactly how well or how poorly they have

been meeting the requirements of their textile customers. Appreciating this we have undertaken to collect the views of large dye users for the benefit of dye makers, and the symposium we publish today is but the first of other special articles of this kind.

The Labor Situation

Raising the age limit for the draft in Great Britain to 51 years threatens to seriously hamper private industries, especially in the retail drug trade. There are many lines of business which might be called one-man interests because the head of the concern is the only person able to conduct its affairs. When he is called by the Government he must close up his shop. The United States has not reached this situation, yet, although now and then a drug store is offered for sale on the plea that the proprietor has been drafted. There seems to be sufficient labor to meet the demands without enlisting women to any great extent, but many chemical companies are gradually employing them in the place of men who have gone to the front. In another year the strain on our labor will be felt, however, and the withdrawal of 2,000,000 men is certain to affect all private interests, especially if the Government continues to broaden its war activities and calls men from the chemical and dyestuff industries to work in the great nitrate plants now being constructed.

Use of Food Oils Increasing

The remarkable increase in the use of food oils in the United States within a few years is undoubtedly due in part to the war conditions which have necessitated conservation of meats and animal fats and in part to the development of the cottonseed oil industry. The pressing of the seeds is seasonal and when the work is done the mills remain idle until another crop is harvested. Manufacturers, under these circumstances, sought ways to keep the mills busy all the year and found a solution of the problem in the importation of soya beans and other vegetable seeds which yield edible oils.

Nature's contributions to the welfare of the human race include whale oil and blubber for the Esquimo, meat animals for the inhabitants of the temperate zone, and oil seeds for those living in the tropics. When the supply of meats was threatened we turned to the vegetable oils for our fats. The supply seems inexhaustible and there is every probability that the industry will continue to grow in the United States and that the people will quickly adapt themselves to the new food oils.

POTASH FROM BEET FACTORY WASTE.

The American Beet Sugar Company announces in its annual report that a plant is in process of construction at Oxnard, Cal., at an estimated cost of \$123,939, to extract potash, ammonia, etc., from waste water from the beet factory. "This plant, it is expected," the report added, "will be ready for operation when the factory begins work the coming summer, and it is estimated that the profit on its production this campaign will exceed its cost, and that thereafter, even with peace prevailing, the value of its products will insure continued profitable operation."

Are American-made Dyes Satisfactory?

Frank Expressions of Opinion from Leading Textile Manufacturers and Large Finishing Houses

NO one is a better judge of the progress made in the American dye industry than the large American users of dyestuffs, and the salient fact that the American makers of artificial dyes are, in the main, meeting the requirements of the textile trade is brought out by the replies which DRUG & CHEMICAL MARKETS received in response to the above question. It is significant that but two of the firms replying have found American-made dyes wholly unsatisfactory. Several speak of the need of standardization. Others do not find it possible to secure all the shades they need. But, with the two exceptions, all find something to say in praise of American dyes and not a few are enthusiastic supporters. The symposium printed below is not, however, an endless string of compliments. It contains some candid criticism—adverse criticism, but constructive—and several definite suggestions to dye manufacturers from their biggest customers.

F. B. CARVER

Holden-Leonard Co., Bennington, Vt.

We have obtained fairly good results with the chrome colors in making medium and dark shades, though the colors are not quite as fast as we would like to have them. In using acid colors the results have not been as satisfactory. In making combination shades such as drabs and slates we have not found it possible to produce colors as fast as they should have been.

The one thing lacking seems to be a fast light blue. It appears to us that a fast acid light blue which would make a drab or slate that would stand exposure of seven or eight days would have a large sale. There does not seem to be anything of the kind on the market.

ANDREW C. IMBRIE, Treasurer;

The United States Finishing Co., New York City.

Our frank opinion of American dyestuffs is that they are steadily improving and while still high in price, we believe that they are type for type comparable to the German products used before the war.

Something remains to be done in standardizing the American products. The range is not as great as that to which we became accustomed before the war, but the prospects are that within the next year or two, American industry will be in a position to compete successfully with the German manufacturers in variety, quality and price.

We consider the progress that has been made by American dye makers in the past three years remarkable. A large part of the difficulties which have arisen in the use of American dyes has been caused by the unscrupulous practice of speculators who sold diluted and adulterated products. These speculators are being gradually eliminated.

GEORGE H. HODGSON, Vice President;

The Cleveland Worsted Mills Co., Cleveland, Ohio.

We are perfectly satisfied with the way the American dyestuff manufacture is being conducted and really believe that most of the staple colors that are being manufactured in this country are fully as good as any that was ever sent out of Germany, or any other country, and whilst there are a few colors that are still imperfect, we have every confidence in the ability of our chemists and dye makers to work them out to a satisfactory end.

A great many of the complications which are entering into this is not on account of the lack of skill of the trade, but on account of the inability to secure certain base chemicals which are very necessary to get the

line of colors that has not yet been put on the market sufficiently strong enough to be considered a standard fast color.

No one more than the writer appreciates the efforts that have been put forth by the dye manufacturers of the United States and I desire to highly compliment them.

CHARLES H. HAYNES, President;

Cliffside Mills, Cliffside, N. C.

The results obtained by use of American dyestuff have been fairly satisfactory on most colors.

J. D. MASSEY, Vice President;

Eagle & Phenix Mills, Columbus, Ga.

Some of the American dyestuffs are fully as good as any that ever came out of Germany. Others are very good, but are irregular in their action, and still others have not the brilliancy and purity of shade that the imported dyes had.

However, there is constant improvement, and if the past is to be the guide, it is our belief that in the course of time a full range of colors and shades can be produced in America equal in every respect to imported dyes.

Considering the rudimentary condition of the American dye industry when the war started, the progress of the dye industry in this country has been indeed remarkable.

FRANCIS J. REGAN, President;

The James J. Regan Mfg. Co., Rockville, Conn.

We have very little comment to make on American dyestuffs. We have used considerable in the way of sulphur black; direct black, brown, etc., also wool colors, and they have proved very satisfactory indeed.

STANDARD BLEACHERY CO.

Carlton Hill, N. J.

We have only used one shade, khaki, and our experience with the same has been very unsatisfactory. All the other colors that we are using are imported, and which we had on hand at the time the war broke out. We only do a very limited amount of dyeing.

SAMUEL A. CROZER & SON

Upland, Delaware Co., Pa.

We find the American dyes that we use very satisfactory.

We have not met with any evidence of German propaganda to discredit American dyestuffs.

We are believers in a tariff sufficiently high to shut out foreign-made dyes after the war.

We are optimistic enough to believe that America will lead the world in the manufacture of dyestuffs.

VICTOR G. BLOEDE

Baltimore Finishing Co., Baltimore, Md.

Concerning American dyes being satisfactory, the dye of a given type and strength, whether American or imported, is the same.

Our dyes, being as yet crude, are apt to be less clear and bright.

With reference to our having noticed any evidence of German propaganda to discredit American dyestuffs, it is our opinion that such propaganda has always existed, only more so, since the war has stimulated American production.

We would not favor a tariff sufficiently high to shut out foreign made dyes after the war, as this should not be necessary. With our production properly organized, we should be able to meet competition.

It is our belief that natural dyes will always have their place.

E. L. BARNHARDT, Vice President;

Gibson Manufacturing Co., Concord, N. C.

We don't find the American dyes altogether satisfactory, mainly on account of variation of strength and shade in the different shipments, but we are pleased to say that the manufacturers are rapidly overcoming this trouble.

We have not noticed any evidence of German propaganda to discredit American dyestuffs.

We favor a tariff sufficiently high to cut out foreign made dyestuffs after the war.

NEW COLORS BY THE DU PONTS

Dr. Charles L. Reese, chemical director of the du Pont Chemical Works, in an address made before the cotton manufacturers of the United States at their recent convention in New York, said the dye problems had been solved, and the du Ponts were turning out synthetic indigo of the best quality on such a large scale that the commercial success of the undertaking is assured. The laboratory problems were all solved long ago. The manufacturing difficulties now have been overcome and the production of this most important factor in the dye industry is going along according to the most up-to-date process at the company's big plant nearing completion at Deepwater Point, N. J.

Not only is indigo being made in quantity, Dr. Reese said, but the plant is turning out all of the intermediates necessary for its production. In addition to the production of this indigo, Dr. Reese announced that his company soon will be manufacturing types of the finest basic, acid and direct colors, and a little later will put on the market the alizarine colors with their mostly needed derivatives, the vat colors. Sulphur and chrome colors also will be put on the market in a comparatively short time.

SOCIETY SUPPORTS DR. LUCIUS P. BROWN

The New York Section of the American Chemical Society adopted resolutions at a meeting held on Friday evening, May 10, favoring the retention of Dr. Lucius P. Brown, who was recently suspended as director of the Bureau of Food and Drugs, New York City. The resolutions declared that in Dr. Brown "the city has a most valuable, administrative, technical and scientific official."

GASTON, WILLIAMS & WIGMORE CHANGES

Harry Payne Whitney and G. M. Dahl, vice president of the Chase National Bank, have been elected directors of Gaston, Williams & Wigmore, Inc., succeeding W. H. Williams and J. A. Wigmore, resigned.

NEW FAST CHROME BROWN OFFERED

The Knickerbocker Color Company, which distributes its products through E. F. Drew & Co., New York, has placed a new fast chrome brown on the market. It is of a rich, reddish brown character, requiring simply the addition of a slight toning of alizarine blue black and the necessary admixture of white stock in order to give the regulation Government olive drab shade. It is exceedingly fast to the specified light and fulling tests and is therefore an important contribution to the range of colors which are now being used for army cloths. It works either on a chrome mordant, with chrome in the bath or on a top chrome method, and in addition to this gives an excellent mode shade of brown in an acid bath.

In view of the fact that the Government is now about to place further heavy contracts for olive drab cloth and that there is a very evident shortage of both chrome brown and alizarine yellow, it would be to the interest of textile mills to bear this new color in mind in arranging for their color contracts. This is the first of a series of chrome colors to be made by this company on an entirely new method, and as it can be produced in quantity at a materially reduced scale of costs, it will probably prove to be one of the most effective and least expensive colors on the market. H. G. McKerrow is handling the output.

GERMANS TRIED TO CORNER LOGWOOD

That Germans were trying to corner all the logwood in Haiti a year before the United States entered the war, was charged in a number of letters from Port-au-Prince, which were read Wednesday in the Superior Court at Boston, in the trial of a suit brought by Edgar J. Thayer and Fred C. Thomas, of New York, against the United States Worsted Company for \$20,000 commission on the purchase of logwood for dyes for the Worsted company.

The plaintiffs allege that the agreement was made in December, 1915, that Thomas bought 596 tons of logwood before June 1, 1916, and that defendant refused to furnish money for a balance of 603 tons, or to pay a commission of \$3,016 due.

In January, 1916, Mr. Thomas wrote to Mr. Thayer: "All cut wood is contracted for and the Germans have played the game for all it is worth by getting all the native buyers under contract for all wood until March 15."

On February 23, 1916, Mr. Thomas wrote: "Bohme, the United States consul at Petit Coave is German. He is agent for Rheinboldt, the biggest buyer and shipper here, and every obstacle has been placed in my way, both in buying and shipping."

NAVY AWARDS DRUG CONTRACTS

The Navy Department has made the following awards for drugs and chemicals:

Squibb & Son, New York, drugs, \$59,000.

The Abbott Laboratories, Chicago, acid, \$11,500.

Heyden Chemical Works, New York, protein silver, \$11,000.

Billings & Spencer Company, Hartford, Conn., quinine, \$81,000.

Powers-Weightman-Rosengarten Company, Philadelphia, quinine hydrochloride, \$10,800.

Supplies Company General, Philadelphia, limestone, \$8,080.

Damascus Bronze Company, Pittsburgh, phosphor copper, \$498.75.

Double award for quinine sulphate.

New York Quinine & Chemical Works, Inc., New York, \$13,940.

Powers-Weightman-Rosengarten Company, Philadelphia, \$26,730.

EXPORT REGULATIONS MORE STRINGENT**New Schedule of Prohibited Shipments Includes Many Chemicals and All Dyestuffs—Allies to Act as a Unit to Conserve Shipping**

The War Trade Board has arranged to have the Governments of Great Britain, France, Italy, and Belgium pass upon the advisability of releasing all proposed exports before licenses are granted to shippers. The new rules became effective on Wednesday, May 15, and no applications for licenses will thereafter be considered unless the official representatives of the nations named believe that the shipments are essential to the war program. The new rules issued by the War Trade Board contain a schedule of articles which have been added to the restricted list of exports, as follows:

Aluminum (metal), asbestos, boilers (high pressure steam), carbon electrodes.

Chemicals as follows: Acetates, all acetic anhydride, acetone, arsenic compounds (all), carbon disulphide, chrome compounds (all), cyanides, dyestuffs (all), ethyl-methylketone, explosives, formaldehyde, glycerin, manganese compounds (all), nitro-benzol, potassium salts (all), pyrites, saccharine, chromium ore.

Plates, sheet bars, slabs, tinplate, wire rope, lumber (all kinds).

Machine tools as follows: Slotters (all sizes), grinders (internal, plain and universal).

Copper (metal), copper wire and cable, ferro alloys (all), graphite, (crucibles and electrodes), iron and steel products, consisting of billets, blooms, boiler tubes, ingots, pig iron boring machines (horizontal and vertical), boring mills, lathes, (30-inch swing and larger), milling machines, No. 3, or Universal, and larger, planers, (all sizes) radial drills (4-inch arm and larger).

Manganese compounds (all) manganese ore, mercury, mica, nickel, (metal), optical instruments; optical glasses, sodium metallic and any metal or ferro alloy thereof, spiegeleisen, tin (pig or bloc) tungsten, tungsten steel and ore, wolframite.

An official statement said the step was taken "for the purpose of preventing the useless consumption of materials and labor in making articles for export which for the present may not be exported and for the purpose of saving tonnage by prohibiting the exportation of articles which have not been recommended by the Government of the country of destination as being necessary for their essential requirements."

The new rules do not cover shipments to the colonies, possessions, and protectorates of the nations. These instructions are issued:

"On and after May 15, 1918, applicants, before filing applications for license to export any commodity to the above-named countries, must obtain thereon the written approval of the mission in the United States of the country to which the exportation is to be made. To secure this approval, applicants should forward their applications, duly executed, in triplicate, with proper supplemental sheets attached thereto, including Supplemental Sheet X-11 or X-12, as may be required, to:

"The British War Mission, Munsey Building, Washington, D. C., for shipments to the United Kingdom.

"The French High Commission, 1954 Columbia Road, N. W., Washington, D. C., for shipments to France.

"The Italian High Commission, 1712 New Hampshire Avenue, N. W., Washington, D. C., for shipments to Italy.

"The Belgian Commission, Room 202, Council National Defense Building, Washington, D. C., for shipments to Belgium.

"One copy of approved applications will be forwarded by the missions directly to the Bureau of Exports, Washington, D. C.; one copy retained, and the other copy re-

turned to the applicant for his convenience in keeping a record.

"Applicants will be required to agree with the War Trade Board not to purchase nor acquire for export, nor to take any steps in the process of producing, manufacturing or fitting for export, the articles specified in the application until an export license has been duly granted.

"Exporters of foodstuffs, fodders or feeds, and shippers of articles contained on Schedule A, set out below, will also be required to agree that after export licenses have been issued they will not make any purchase nor acquire for export, nor take any steps in the process of producing, manufacturing or fitting for export, the articles specified in the application, unless they first obtain the written approval of the United States Food Administration or of the United States War Industries Board.

"Applicants should use Form X, together with any supplemental information sheets required by the rules and regulations of the War Trade Board, and in addition thereto Supplemental Information Sheet X-11.

"If, prior to May 15, 1918, any of the articles specified on such applications were purchased or acquired for export, or if any steps were taken in the process of producing, manufacturing or fitting for export such articles, applicants must agree that, after export licenses have been issued, exportation thereunder will not be made until written approval of the United States War Industries Board has been received with respect to articles specified in Schedule A, or of the United States Food Administration with respect to foodstuffs, fodders or feeds. In such case the applicant should use Supplemental Information Sheet X-12, in place of Sheet X-11.

"Applicants should not apply to the United States War Industries Board or to the United States Food Administration for approvals until they are actually in receipt of export licenses.

"On July 1, 1918, all outstanding licenses granted on or before May 14, 1918, will be revoked. Any goods not then exported against such licenses may thereafter be shipped only if licenses are secured after being applied for as above set forth."

CHANGE IN WAR SERVICE COMMITTEE

Frederick Rosengarten, of Powers-Weightman-Rosengarten Company, has succeeded Adolph G. Rosengarten on the War Service Committee of the American Drug Manufacturers Association. The latter was obliged to sever his connections with that body when he accepted a place in the organization of the War Industries Board. The committee is now composed of the following:

Willard Ohliger, chairman, Frederick Stearns & Co., Detroit; F. G. Ryan, secretary, Parke, Davis & Co., Detroit; Donald McKesson, New York Quinine & Chemical Co., New York City; Frederick Rosengarten, Powers-Weightman-Rosengarten Co., Philadelphia, Pa.; W. A. Sailer, Sharp & Dohme, Baltimore, Md.; Burton T. Bush, Antoine Chiris Company, New York City; Dr. H. C. Lovis, Seabury & Johnson, New York City; Milton Campbell, H. K. Mulford Company, Philadelphia, Pa.; Dr. W. C. Abbott, The Abbott Laboratories, Chicago, Ill.

The address of the committee is 1050 Penobscot Building, Detroit, Michigan.

PLANNING TO BOYCOTT GERMAN GOODS

The American Defence Society is seeking 20,000,000 signatures to the following: "I pledge myself never knowingly to buy any article made in Germany." The American Guardian Society is also backing a trade boycott movement.

Financial Notes

The General Chemical Company will pay a quarterly dividend of 2 per cent. on the common stock, payable June 1 to stockholders of record May 22.

The Hercules Powder Company has declared a dividend of 1 per cent. on the common stock, payable May 21 to stockholders of record May 13.

The Semet Solvay Company announces a quarterly dividend of 2 per cent. and a dividend of 2 per cent. in stock, both payable to stockholders of record April 30.

The Distillers Securities Company has declared an extra dividend of $1\frac{1}{2}$ per cent. in addition to the regular quarterly dividend of $\frac{1}{2}$ of 1 per cent. both payable July 18 to stockholders of record July 2.

The By-Products Coke Company has declared an extra dividend of 2 per cent. in stock, in addition to the regular quarterly dividend of \$1.50 per share, both payable to stockholders of record April 30.

PLATINUM OUTPUT IN 1917

According to figures compiled by J. M. Hill, of the United States Geological Survey, Department of the Interior, only 605 ounces of crude platinum was sold by placer mines in 1917. This is less than the sales in 1916 by about 100 ounces. The imports of crude platinum amounted to 31,921 ounces, not counting the 21,000 ounces of Russian crude platinum which was received by the Government late in December.

During 1917 refiners made about 33,000 ounces of platinum, 4,800 ounces of palladium, 833 ounces of osmiridium, and 210 ounces of iridium, which can be called "new metals." Of this amount about 7,400 ounces probably originated from domestic materials.

The saving of scrap platinum of all classes resulted in much larger recoveries of secondary platinum metals than in previous years, a total of 72,000 ounces being recovered, as compared with 48,000 ounces in 1916.

DUTY ON MELTING POT CLAYS

The United States Court of Customs Appeal has decided the appeal of Koons, Wilson & Co., from the ruling of the Board of United States General Appraisers in favor of the appellant, reversing the board, but ordering liquidation only as to importations of certain clays in barrels or casks. The clay was used in the manufacture of glass melting pots. The importers claimed the clays were entitled to free entry. The board assessed three separate importations under the tariff acts of 1909 and 1913.

Edward Jessup Stewart, president and treasurer of the United Metal Seal Company, died Wednesday, May 8, at his home 54 University road, Brookline, Mass. His early life was passed in New York city. He became interested in the Cliquot Ginger Ale Company and was one of the organizers of the Rex Bottling Company. He was also interested in the United Cork and Seal Company.

T. Toda who has been New York manager for S. Suzuki & Co., Ltd., with factory and main offices in Tokio, Japan, is to open an office in London. T. Domen assumes charge of the New York office.

PAINT, OIL AND VARNISH CLUB MEETS.

The Paint, Oil & Varnish Club of New York held its 161st meeting and dinner at the Drug and Chemical Club Thursday night, May 9. President D. W. Edgerly directed attention to the committee reports of George W. Fortmeyer, arbitration committee; W. H. Phillips, Third Liberty Loan Committee, who stated that the subscriptions of the paint, oil and varnish trade of New York had aggregated \$5,806,300; Luther Martin, Mutual Fire Insurance Committee, and Frank P. Chessman, of the National Security League Committee, who reported a total of \$23,090 in trade subscriptions to the fund.

President Morton, of the National Paint, Oil and Varnish Association, urged an active participation by the New York trade representatives in the National Convention in Boston October 22-24. Mr. Uhlinger, of the Interchange Credit Bureau, spoke on credits and collections, and Julian A. Gregory, counsel of the New York Credit Men's Association, gave an interesting address on the prosecution of commercial fraud as business insurance.

The following officers were chosen for the ensuing year: President, T. E. Kearns; vice president, J. W. Bossert; secretary, G. V. Horgan; treasurer, Harry Woolsey.

Western Notes and Personals

William A. Stewart has opened offices in the Postal Telegraph Building, San Francisco, Cal., and will represent Eastern manufacturers of dye stuffs and adhesives.

L. J. Gilbert and A. R. Solomon have filed a public notice to the effect that they are engaged in business at 116 First street, San Francisco, Cal., as the Chapman Chemical Company.

The United States Nitrate Company has been incorporated at Tacoma, Wash., by J. F. Austin, J. E. Berkheimer, F. Campbell and August Stein, with a capital stock of \$1,000,000.

W. W. Worden, president of the National Chemical Company, Oakland, Cal., has been made a director of the First National Bank of Richmond, Cal., of which he was one of the founders.

The Peco Packing Company, recently organized at San Francisco, Cal., by J. C. Martin, Jr., has leased a factory at Oroville, Cal., and is refining oil made from the kernels of peaches and other deciduous fruits.

The Stauffer Chemical Company has commenced work on the installation of boilers and other equipment at its new plant at Berkeley, Cal. The plant has been in course of construction for two years.

The California Commissioner of Corporations has granted the Soda Products Company a permit to issue stock to John D. Spreckels, Jr., and R. J. Tobin, who will establish a plant at Owens Lake for the manufacture of soda ash and other products.

The United States Elaterite Products Company has completed the erection of a plant at 361 South Fifth West street, Salt Lake City, Utah, for the refining of elaterite to the form of a paint having the qualities of resisting acids, alkali and water. George R. Raymond is secretary of the concern.

Census of Chemicals and Colors

Government Report Shows Status of the Industry in Year the War Began

THE Bureau of Census has issued its report on chemical and allied industries for 1914, the year the war began, treating the subject under groups including acids, dyestuffs, wood distillation, essential oils and numerous other divisions. The following table gives a general idea of capital invested and production:

	Total	Chemicals	Sulphuric nitric, and mixed acids	Explosives	Dyestuffs and extracts	Wood distillation not including turpentine and rosin	Essential oils
Number of establishments	2,461	395	32	111	112	95	105
Persons engaged	111,453	37,881	3,604	8,425	3,551	3,142	435
Capital	\$722,988,871	\$224,345,921	\$35,233,936	\$71,351,414	\$21,283,974	\$17,562,849	\$1,616,682
Salaries and wages	89,653,331	31,086,915	3,082,747	7,795,623	3,001,959	1,968,011	238,607
Rent & taxes (incl. int. rev.)	5,599,664	1,733,251	217,278	322,132	225,582	146,533	14,106
Cost of materials	340,216,702	89,450,694	6,734,428	25,626,539	13,237,995	6,495,570	1,564,835
Value of products	547,801,937	158,053,602	15,215,474	41,432,970	20,620,336	9,882,537	2,313,606

By states the census gives the number of establishments, wage earners and value of products as follows:

State	Number establishments	Wage earners	Census of 1914 Value of products
New York	70	7,780	\$42,876,880
New Jersey	64	6,276	31,686,865
Pennsylvania	39	4,748	22,387,835
Michigan	36	4,509	13,891,415
Ohio	29	2,017	11,388,140
Illinois	26	1,682	8,618,118
Missouri	22	842	6,936,122
Massachusetts	24	1,395	6,684,918
California	20	257	1,524,411
West Virginia	3	52	482,949
Wisconsin	7	60	436,222
Washington	4	32	373,553
All other states	51	2,661	10,766,174

The tendency of the industry to become concentrated in large establishments is indicated by the statistics. There were 44 establishments in 1914 reporting products valued at \$1,000,000 or more. The average value of products per establishment increased from \$327,970 in 1909 to \$400,136 in 1914, and the average number of wage earners per establishment from 66 in 1909 to 82 in 1914.

Sulphuric Acid

The manufacture of sulphuric acid and nitric acids, and what is known as mixed acid—sulphuric and nitric—is in the main a specialized industry. There is, however, a considerable production of these acids by establishments that manufacture other chemicals, and a large quantity of sulphuric acid is made in conjunction with the fertilizer industry.

Sulphuric acid is produced in several different grades: (1) 50° Baumé, or chamber acid, containing on an average 51.4 per cent of SO₃; (2) 60° Baumé, containing 63.7 per cent of SO₃; (3) 66° Baumé, known as oil of vitriol, containing on an average 76.4 per cent of SO₃; and (4) oleum, which consists of SO₃ dissolved in a sulphuric acid containing 97 to 98 per cent H₂SO₄. Since the census of 1890 the separate grades have been reported, so that it is possible to show somewhat definitely the condition of the industry at each succeeding census. Oleum was first reported for 1904. To reduce the different grades to the basis of 50° Baumé, the factor 1.25 has been used for 60° acid, 1.50 for 66° acid, 1.71 for oleum, and 1.93 for sulphur trioxide, the quantities being multiplied by these respective factors.

Reduced to 50° Baumé, the production in 1914 was an increase of 47.3 per cent over that of 1909, the ratio of increase for the period 1904-1909 being 47.9 per cent,

and for 1899-1904, 20.8 per cent. The sulphuric acid produced for sale in 1914 constituted in value one-half of that for all acids.

Caustic Soda

The States of New York and Michigan produced the greater portion of the caustic soda manufactured in 1914, these states furnishing 81 per cent of the total.

A considerable portion of the caustic soda now manufactured is produced by the aid of electricity, nearly 20 per cent of the output reported in 1914 being so manufactured.

Soda ash is reported as 48 per cent or 58 per cent, the percentages referring to the Na₂O contents. Of the total production, only 8,860 tons, or a little less than 1 per cent, was returned as 48 per cent. Over nine-tenths of the production was from Michigan, Ohio, and New York, in the order named.

The bicarbonate of soda reported was chiefly from New York, Michigan, and Virginia; and the borax from New Jersey, Pennsylvania, Illinois, New York, and California.

Dyestuffs Industry in 1914

The manufacture of dyestuffs is largely centered in the Middle Atlantic and New England States. Six of the Southern States are represented in this industry with 30 establishments engaged chiefly in the manufacture of tanning extracts and of ground wood and bark. Only one establishment was located west of the Mississippi River, and this in California, while the Middle West was represented by only 6 establishments in four different States.

New York and New Jersey were the leading States in 1914 and 1909, as measured by value of products and value added by manufacture, New York being also the leading State in the number of wage earners employed. These states combined reported in 1914, 54.3 per cent of the total value of products, 57.8 per cent of the value added by manufacture, and 34.9 per cent of the total number of wage earners.

The concerns manufacturing dyestuffs and extracts in 1914 numbered 133; of these 112 reported these goods as their primary product, while 21 manufactured dyestuffs and extracts as subsidiary products, these latter concerns including establishments engaged primarily in the manufacture of leather, soap, patent medicines and compounds, cleansing and polishing preparations, chemicals, paints, and paving materials. These establishments all manufactured dyestuffs or extracts for sale. The statistics for dyestuffs and extracts made by dye and paint works or by tanneries for their own use in the further processes of manufacture are not included in the report for this industry.

Of the total value of the products made for sale, \$21,382,689, the value of dyestuffs amounted to one-

third (33.3 per cent). The largest proportion consisted of artificial dyestuffs, and the value of these products was reported as \$5,252,693. The manufacture of artificial dyestuffs was reported by 26 establishments, of which 12 manufactured coal-tar dyes only, and 10 mineral colors or dyes, while 4 reported the production of both coal-tar and mineral dyes. The coal-tar dyes include azo, benzidine, anthracene, alizarin, etc. Several of these establishments merely mixed the colors, while others purchased aniline and other coal-tar intermediates, largely imported stock, from which they manufactured dyes. The production of artificial dyestuffs in the United States in 1914 shows a very large increase over that of 1904, the value of this product being almost three times as great.

Of the value of natural dyestuffs in 1914, the value of logwood extract constituted more than seven-tenths (70.4 per cent). Although a greater amount of logwood extract was reported in 1914 than in 1909, it was considerably less than that reported either in 1904 or 1899. Other dyewood extracts, such as fustic, quercitron, cutch, Brazilwood, etc., to the value of \$426,683; ground or chipped dyewoods to the value of \$37,751; and natural dyestuffs, other than dyewoods, to the value of \$85,762 were also reported. The latter class includes cochineal, curcuma, turmeric, indigo, and annatto.

Of the 112 establishments in 1914, there were 50, or 44.7 per cent of the total, whose products were valued at \$100,000 or more, including 3 with products valued at \$1,000,000 and over. These 50 establishments reported 89.9 per cent of the total value of products for the industry. The average value of products per establishment increased from \$111,154 in 1904 to \$149,108 in 1909 and to \$184,110 in 1914, and the value added by manufacture from \$41,467 in 1904 to \$58,607 in 1909 and to \$65,914 in 1914, while the average number of wage earners per establishment increased from 22 in 1909 to 25 in 1914.

Products of Wood Distillation

There were 95 establishments engaged primarily in the distillation of wood in retorts, ovens, or kilns or by the steam process, in 1914 against 120 plants in 1909. The tendency has been to concentrate in large establishments.

Of the 95 establishments reporting in 1914, 28.4 per cent manufactured products valued at \$100,000 or over, and the value of these products represented 70.9 per cent of all products, as compared with 17.5 per cent and 63.8 per cent, respectively, in 1909. The average number of wage earners per establishment increased from 16 in 1904, to 23 in 1909 and to 29 in 1914, while the average value of products per establishment increased from \$55,415 in 1904 to \$81,142 in 1909 and to \$104,027 in 1914.

The principal products are wood alcohol or methyl alcohol, sometimes known as wood spirit, acetate of lime (calcium acetate) both brown and gray, acetate of soda, acetic acid, formaldehyde, acetone, pyroligneous acid and pyrolignite of iron, tar, wood creosote and charcoal, and turpentine in the case of pine wood distillation.

The wood used for making alcohol and acetate of lime is hardwood, such as oak, maple, beech, and birch. Beechwood and foliage trees in general yield distinctly more acid than coniferous trees, but the latter yield more tar. The quality and character of the yield depend upon the kind and age of the wood and the temperature and rate at which the charge is heated.

Essential Oil Industry

The principal increases in the essential oil industry are shown in the production of oil of peppermint and

oil of spearmint. The production of oil of peppermint for 1914 comprises 254,793 pounds of crude oil, valued at \$353,076, and 109,198 pounds of refined oil, valued at \$248,541. In 1909 there were reported 269,081 pounds of crude peppermint oil, valued at \$450,981, and 36,700 pounds of refined oil, valued at \$68,098. The production of oil of spearmint increased from 33,400 pounds in 1909 to 94,209 pounds in 1914.

Michigan was the chief producer of crude peppermint and spearmint oils, while New York reported the largest proportion of these products in a refined state. Connecticut reported the greatest production of oil of black birch; Pennsylvania, of oil of wintergreen; and New York, of oil of wormwood. Indiana shows a large increase in the production of essential oils, principally oil of peppermint.

The production of witch-hazel extract increased very materially from 1909 to 1914, Connecticut, New Hampshire, and Pennsylvania being the leading states. The production is shown in the following table:

	1914	1909	1904	1899
Number of establishments....	107	74	52	47
Products:				
Total value	\$2,565,361	\$1,773,304	\$1,464,662	\$813,405
Essential oils, value	\$1,289,482	\$1,111,805	\$1,023,937	\$700,709
Peppermint:				
Pounds	363,991	305,781	130,002	212,350
Value	\$601,617	\$519,079	\$470,037	\$188,359
Spearmint:				
Pounds	94,209	33,400	.....	.....
Value	\$238,074	\$83,283	.....	.....
Black birch:				
Pounds	41,178	67,053	.....	.....
Value	\$67,691	\$102,045	.....	.....
Wintergreen:				
Pounds	6,000	22,281	4,737	2,166
Value	\$24,538	\$68,983	\$15,579	\$3,638
Wormwood:				
Pounds	4,702	.....	.....	.....
Value	\$9,040	.....	.....	.....
Other essential oils	\$348,522	.....	.....	.....
Witch-hazel extract:				
Gallons	917,690	691,823	797,700	110,260
Value	\$575,938	\$419,793	\$367,873	\$54,669
All other products	\$699,941	\$241,706	\$72,852	\$58,137

Output of Explosives

The manufacture of explosives was not under high tension in the early part of 1914, and the figures of the census do not include the production of establishments operated by the Government. Here are given the materials used and the output of powder for commercial uses:

MATERIAL	Explosives (ton of 2,000 pounds).			
	1914	1909	1904	1899
Total cost	\$25,626,539	\$22,811,548	\$17,203,667	\$10,334,974
Sulphur or brimstone:				
Tons	15,832	17,389	19,574	12,742
Cost	\$372,763	\$367,866	\$507,469	\$317,383
Pyrites:				
Tons	25,885	36,544	12,256	.....
Cost	\$139,496	\$183,519	\$67,261	.....
Nitrate of soda:				
Tons	190,960	188,689	133,034	68,524
Cost	\$8,979,877	\$7,892,336	\$5,603,557	\$2,902,966
Glycerin:				
Tons	29,012,008	.....	.....	.....
Cost	\$5,439,405	.....	.....	.....
Acids:				
Sulphuric—				
Consumption, tons	83,605	65,066	49,292	40,230
Purchased—				
tons	52,398	22,501	18,298	7,864
cost	\$723,795	\$406,204	\$247,301	\$130,699
Produced in works				
where consumed, tons	31,207	42,555	30,994	32,366
Nitric—				
Consumption, pounds	102,930,184	70,559,756	40,675,500	15,015,587
Purchased—				
pounds	8,694,684	7,591,756	2,699,500	467,587
cost	\$476,404	\$541,314	\$122,047	\$17,171
Produced in works				
where consumed, lbs.	94,226,000	62,968,000	37,976,000	14,548,000
Mixed—				
Consumption, pounds	177,306,992	.....	.....	.....
Purchased—				
pounds	38,509,594	51,764,694	105,552,044	66,906,146
cost	\$1,047,377	\$1,512,626	\$3,093,429	\$1,505,734
Produced in works				
where consumed, lbs.	138,797,398	.....	.....	.....
All other materials, cost....	\$8,447,422	\$11,907,693	\$7,557,603	\$5,461,101

PRODUCT.	Explosives			
	1914	1909	1904	1899
Total value	\$41,432,970	\$40,139,661	\$29,602,884	\$17,125,418
Explosives, total:				
Pounds	481,752,040	487,481,152	360,980,734	215,980,720
Value	\$39,645,382	\$37,963,868	\$27,695,963	\$16,950,976
Dynamite—				
Number of establishments	26	26	.....	31
Pounds	223,667,630	220,145,791	130,920,829	85,846,456
Value	\$20,553,653	\$20,998,820	\$12,900,193	\$8,247,223
Permissible explosives—				
Number of establishments	20	13	.....	.....
Pounds	18,113,601	9,607,448	.....	.....
Value	\$1,604,072	\$863,209	.....	.....
Nitroglycerin—				
Number of establishments	58	49	.....	.....
For sale as such	32	23	.....	.....
For consumption	27	26	.....	.....
Production, pounds	65,302,883	74,212,980	52,013,764	35,280,498
Sold as such—				
Pounds	3,785,474	3,923,323	7,935,936	3,618,692
Value	\$950,611	\$863,360	\$1,620,117	\$783,299
Consumed in works where produced, lbs.	61,517,409	70,289,667	44,077,828	31,661,806
Blasting powder—				
Number of establishments	48	38	.....	47
Pounds	207,423,675	233,477,175	205,436,200	.....
Value	\$8,459,113	\$9,608,265	\$7,377,977	.....
Gunpowder, black—				
Number of establishments	8	8	.....	.....
Pounds	7,685,036	12,862,700	10,383,944	.....
Value	\$977,455	\$1,736,427	\$1,541,483	.....
Other explosives—				
Number of establishments—				
Guncotton or pyrozylin	4	2	.....	10
Smokeless powder	5	4	.....	9
Other	6	8	.....	.....
Pounds	21,076,624	7,464,725	6,303,825	3,201,468
Value	\$7,100,478	\$3,913,787	\$4,256,193	\$2,610,103
All other products, value	\$1,787,588	\$2,155,793	\$1,906,921	\$174,442

WAR COMMITTEES HANDLING CHEMICALS

The Chemical Alliance has issued the following official list of committees handling the chemicals under control of the War Industries Board:

Leland L. Summers, chief of explosives section.
 Charles H. MacDowell, chief of chemical section.
 Mica—Handled by J. H. Adams.
 Acids and Heavy Chemicals—Albert Brunner, A. E. Wells, R. S. Hubbard.
 Alkalines and Chlorine—H. G. Carroll.
 Wood Distillation Products, Acetates, Wood Alcohol, Platinum, Platinum Metals (Commandeering and Requisitioning)—C. H. Conner.
 Toluol Distributions, Creosote—Ira C. Darling.
 Tanning Materials, Greases, Tallowes, Vegetable Oils, Waxes—E. J. Haley.
 Pigments and Paints—R. S. Hubbard.
 Coal and Gas Products, Benzol, Rare Gases, Nitrogen—J. M. Morehead.
 Nitrates—Charles H. MacDowell.
 Fine Chemicals, Medicinal, Analytical, Photographic—A. G. Rosengarten.
 Manganese, Chrome, Tungsten, Ferro Alloys—H. W. Sanford.
 Glass, Carboys, Stoneware—Robert M. Torrence.
 Brimstone, Sulphur, Pyrites, Alcohol, Ethyl or Grain—William G. Woolfolk.
 Inorganic Chemicals, Electro-Metallurgy, Dyestuffs—Dr. H. R. Moody, Dr. Samuel A. Tucker, Dr. E. R. Weidlein.

Exports of cassia or commercial cinnamon from Hongkong during the past year have held up fairly well, all things considered, though figures show decreased exports in amounts and values. Exports to all countries are placed by commercial authorities at 75,351 cases, compared with 94,296 cases in 1916. Of the shipments in 1917 the United States and Canada are credited with 51,646 and Great Britain with the balance of 23,705 cases, while in the previous year the United States and Canada are credited with 58,225 and Great Britain with 36,071. Declared exports of cassia to the United States during 1917 were valued at \$349,968, as compared with \$504,207 for 1916.

FRANCE NEEDS CHEMICALS FOR VINEYARDS

Opportunity Open for American Manufacturers of Copper Sulphate, Sulphate of Iron and Fertilizers—Prices High and Demand Greater Than the Supply

Owing to the ravages of insects the great vineyards of France require the application many times during the season of certain solutions of chemicals which have been employed widely for a number of years. These chemicals include copper sulphate crystals, sulphate of iron, sulphur of both triturate and sublimate forms, and various special fertilizers for the soils. Some cultivators apply first the sulphate of iron in March as a preliminary measure against the diseases of the vine and in order to clean the stalks. The next application is usually a wash of sulphur, which remains on the vines until after the leafing period, late in April, when the spraying with solutions of sulphate of copper is begun. With the growth of the foliage come new dangers in the nature of diseases, mildew, brack rot, scale, and caterpillars, all of which increase the necessity for the continued spraying of this solution of copper sulphate throughout the growing season until a very short time before the harvests or vintages in late September or early October.

At the present time most of the stock of copper sulphate bought outside of France is coming from England, due to an arrangement between the governments of the two countries, but the quantity being furnished is still less than the demand and the prices are so high that the growers' associations in all section are already petitioning the ministry of agriculture to take further official action to relieve the present stress. It is believed that some steps will soon be taken, either to provide the space necessary to transport orders placed in other countries for the chemical products or to sell some stocks through official agencies. Copper sulphate crystals of English origin are selling in the local market at from 210 to 235 francs per 100 kilos (18 to 21 cents per pound) and the available sulphur supply at from 130 to 150 francs per 100 kilos (11 to 13 cents per pound), prices never known before in this market. The increasing number of inquiries received by American firms regarding these materials would indicate that some of the cultivators and dealers are already turning to the American manufacturers to find new and larger sources of supply for their stocks.

In describing the needs of the local market and the particular desires of the cultivators, it may be said, first of all, that the growers here prefer the copper sulphate in crystal form, as there is a prejudice against the sulphate "snow," or powder, although necessity has led to its wider use lately. Where a choice can be made, the crystal form is usually taken. For the sulphur, the triturate, which is freer from traces of sulphuric acid and which pulverizes better in the spraying apparatus, is coming into more general use than the sublimate, which some prefer for its fineness but which clogs the machines and nearly always contains some sulphuric acid. The sublimate sulphur in the form known as the "fleurs," or flowers, enjoys a wide sale yet.

American manufacturers and exporters should be able to introduce and establish the sale of their chemicals here without difficulty at this time and perhaps be able to retain a part of the trade even after the war is over. Under the present tariff the general rate of duty on copper sulphate is 26 cents per 100 pounds; sulphate of iron, 11 cents per 100 pounds; and sulphur, refined and flowers of, 26 cents per 100 pounds. American imports are subject to the general rate.

For the use of prospective exporters of agricultural and vinicultural chemical products in the United States a list of the more important dealers and importers of these goods in southwestern France has been sent to the U. S. Department of Commerce (copies of which may be obtained from the Bureau of Foreign and Domestic Commerce or its district and cooperative offices by referring to file No. 99818). Some of the larger establishments in Bordeaux serve as deposits and general agencies for manufacturers at home and in foreign traffic, as a great part of the stocks used in the interior are entered through this port. American houses might find this the more satisfactory method for entering the market, as it is what the English shippers do and what the former German houses here found most successful.

Clean Out the Frauds

W. J. WILLES, Vice President and General Manager, Willes-Horne Drug Company, Salt Lake City, Utah.

There can be no two sides to the question—the cheats and the frauds should be driven from cover. When they are found they should be dealt with as enemies to the country. They are not different, in this time of war, from any others who give aid to the enemy. Certainly they do that, when they increase the hardships and burdens of the people, who already have all they can bear in caring for themselves and helping Uncle Sam in his great purpose.

DRUG AND CHEMICAL MARKETS has taken the lead; we must get in behind and help as much as we can. It is regrettable that at a time when men should be actuated by no other motives than patriotism there are some—a few in comparison, let us hope—who take secret advantage of circumstances for their own selfish ends. Smoke them out! They are a curse to the industry and they cast the shadow of their guilt over all engaged in it.

JUDGE DOOLING'S PROPRIETARY DECISION

Judge Dooling of the Northern District of California does not seem to regard the word "remedy" as synonymous with the word "cure;" nor "expert" testimony as to the remedial value of a drug quite as trustworthy as testimony "given by witnesses, physicians and others who had used the medicine themselves, or had observed its effect on others, and all testified to its beneficial effects." The court said in part:

"The Government insists that the word 'remedy' is synonymous with 'cure' and cites a definition from Webster's International Dictionary as follows:

"Remedy: that which cures a disease," but the real definition found in that dictionary is the following: 'Remedy: that which relieves or cures a disease.' The Standard Dictionary gives the following definition: 'Remedy: that which is used in any way for the cure or relief of bodily disease; a medicine; also remedial treatment.'

"It cannot therefore in this criminal action be concluded that when the defendant used the word 'remedy' it used it as synonymous with 'cure,' nor can it be concluded that the word would be understood by the public to mean 'cure.'

"There is testimony that Akoz has relieved all the diseases specified, and that the proprietors were informed of that fact."

The opinion is printed in Service and Regulatory Announcements, Chemical Supplement No. 42, issued in April.

PROBLEMS OF PROPRIETARY MAKERS.

The Proprietary Association of America, which held its thirty-sixth annual meeting behind closed doors at the Hotel Astor, New York City, on May 7 and 8, ended its sessions with the re-election of the executives in office during the preceding year. President Frank A. Blair in his annual address characterized the year just past as "the most trying in the history of the association" because of the hostile attitude of many State legislatures against manufacturers of proprietaries.

"When we met a year ago," he said, "we discussed the activities of the various State legislatures, and the anticipated activity at Washington. I do not believe that any of us realized what a difficult period this past year would be. Particularly in the South, the prohibition question has been a serious one, because in their desire to make their territory dry territory, the law makers have enthusiastically endeavored to wipe out everything which contained alcohol, no matter whether it was absolutely necessary as a solvent or preservative or not. In Kentucky and also in Virginia special legislation along this line has been passed. Formula disclosure is proposed in Louisiana and Georgia. A formula disclosure bill is also before the New York Legislature, and constant vigilance and steady watching are necessary."

President Blair urged the members of the association to get into personal touch with leaders of the Anti-Saloon League and the Prohibition Party in their districts, and with as many of the members of their State legislatures as possible, and called attention to the fact that the proprietary medicine industry stood today in better estimation than ever before.

"The business is today on a higher plane than it has ever been in its history," he said, "We have had our fakes and our fakers—we still have them. We have had our conscienceless advertisers—we still have them—but we have fewer fakers making fewer fakes, and we have fewer advertisers who have not yet recognized the fact that to do a successful medicine business you must first have a good article, and must next honestly advertise it."

Although H. B. Thompson of Washington, general counsel for the association, presented a legislative review of great importance for the past year, and Chairman F. H. Fernald, of the Special Requirements Committee which has been at work for the last two years investigating the character of the preparations manufactured by members of the association, and by new applicants for membership, was scheduled to report on the findings of the committee, no inkling of what was said behind the closed doors of the meeting room was permitted to get out.

The officers re-elected for the coming year are: President, Frank A. Blair, Chicago, Ill.; first vice president, W. H. Gove, Lynn, Mass.; second vice president, Allen F. Moore, Monticello, Ill.; secretary-treasurer, Charles P. Tyrrell, Syracuse, N. Y.

LICENSES IN DUTCH EAST INDIES

The American Minister at The Hague reports in a cablegram of May 1 that the exportation of tin ore, quinine salts and bark, and kapok from the Dutch East Indies has been prohibited but that licenses for the exportation of these articles may be obtained from the Colonial Government upon compliance with the regulations prescribed by the governor general. So far as known, no special conditions have been placed so far upon the granting of these licenses, but it is possible that the granting of licenses may be made subject to conditions.

Germany's Stolen Chemistry

Important Scientific Discoveries and Industrial Processes of All Nations Appropriated by the Germans

By TOWNES R. LEIGH, Professor of Chemistry Georgetown College.

PART IV

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IF the introduction of anesthetics marked a new era in surgery, a similar claim may be made in connection with the substance adrenalin, which was isolated in 1901 by the Japanese, Takamine, working in Columbia University. Because of the constricting effect of the chloride of adrenalin upon the blood vessels, the surgeons find it their most valuable styptic.

Turn where we may in the field of medicine or surgery or bacteriology, we find that their great fundamentals were not "made in Germany." Malpighi, professor of medicine at Bologna, used the microscope in his researches as early as 1660; sixteen years later Leuwenhoeck, while carrying out investigations by the aid of lenses ground by himself, discovered animalcules. Though bacteriology in reality dates from the observations of this keen Hollander, it was a brilliant Frenchman, Pasteur, who founded the science of bacteriology. It was he who isolated the hydrophobia bacillus, and found the cure for rabies; Nicolaier of France, discovered the lockjaw bacillus; and Sternberg, an American, the pneumonia bacillus. Sir. Ronald Ross, of the British Navy, discovered the complete history of the parasite which produces malarial fever. His important investigations opened up the way to a very wide field of research. In 1894 the germ was isolated by a Japanese doctor, Professor Kitasota; Major Liston of the Indian Army soon found that the flea which infested rats was guilty of spreading the Asiatic plague; and it was Sir David Bruce who discovered the parasite which produces sleeping sickness.

Remedy for Typhoid

Typhoid fever, a disease that has killed more soldiers than were ever killed by bullets, has been virtually banished from the armies of the civilized world by the anti-typhoid vaccination; and the disease has been greatly reduced in severity and mortality by the bacterin treatment. The honor of introducing typhoid immunization is due to Sir Almroth Wright, whose method of prevention saved many of the British troops in 1898, and has now come into world-wide use, not only among the armies, but in civilian life as well.

Besredha, working in the Pasteur Institute, demonstrated that bacterins sensitized by treating them with immune serum are superior to insensitized bacterins. The serobacterins of Besredha were made commercially available by a company in Philadelphia.

Noon, working in Sir Almroth Wright's laboratory, demonstrated that hay fever may be prevented and the disease successfully treated with subcutaneous injections of pollen extracts. The introduction of the Bulgarian bacillus as a therapeutic agent is due to the results obtained by Metchnikoff in the treatment of his own case. In 1891 Roux, of France, announced that antitoxin formed in the blood of animals immunized to diphtheria bacillus could be used in the treatment of the disease in man. In this resume, mention should be made of the discovery of the organism of epidemic cerebrospinal meningitis and the development of the serum for its successful treatment, also the discovery of the bacillus of infantile paralysis—all done by Flex-

ner at the Rockefeller Institute; and that it was Dr. Murphy of Chicago who perfected the drop method in irrigation of infectious canals.

Countless other inventions and discoveries, among them the stethoscope, invented by the Frenchman Laennec, might be mentioned to prove that we are not indebted to Germany for many things that are fundamentally important to the science of medicine. In passing, let us recall that we are not indebted to the Germans for the use of senna, rhubarb, madder, jalap, ipecac, sarsaparilla, balsam of tolu, gum arabic, tannin, tobacco, Irish moss, balsam of Peru, refined camphor, cimicifuga, oleic acid, glacial acetic acid, hydrochloric acid and nitric acids, etc.

Discoveries in Dentistry

Though Pierre Fauchard, a native of Brittany, is the father of modern dentistry, America excels all other countries in dental science and practice. It is to our country that the world owes the greatest development in the art of replacing the lost portions of tooth crowns by gold fillings. To Dr. Robert Arthur of Baltimore we are indebted for the discovery of the cohesive property of annealed gold foil; to Dr. S. C. Barnum of New York, for the introduction of the rubber cofferdam; to W. H. Atkinson, also of New York, for the dental mallet; to Dr. W. G. A. Bonwell of Philadelphia, for the invention of the electro-magnetic mallet; to Morrison for the devising of the dental engine; and to Goodyear for hard-rubber dental plate. Through the invention of the improved technique by Dr. C. H. Laud of Detroit and Dr. N. S. Jenkins, an American resident dentist at Dresden, the use of porcelain as a restorative material became practically possible. Miller, who discovered the cause of the decay in teeth; Wells, who introduced laughing gas in dentistry, Allen, who perfected the enameled platinum denture, and Younger, who first planted teeth in artificial sockets, were Americans all. In 1863 Clayton, a teacher of chemistry, by means of a perfected apparatus revived interest in the use of laughing gas as an anesthetic. Dr. W. G. T. Morton, a former partner of Dr. Wells, introduced the vapor of sulphuric ether for the same purpose; but to Clover are we mainly indebted for the many mixtures which make modern anesthesia so little to be feared in dental and surgical operations.

Richardson of America was the first to advocate the galvanic current in inserting drugs into tissue, and W. W. Keen first used the surgical engine. The spiral osteotome was devised by Cryer, a professor in the University of Pennsylvania, who also brought out the universal forceps. Dare invented the hemoglobinometer; Crile, the dental clamp; Parmly the bayonet shaped forceps and the full curved forceps; Beck, Beck's paste, used with the X-Ray in investigating the depth and source of sinuses.

It was Professor Nicholas Senn who first used the term "alveolitis," the disease described by Younger in 1864, and now known as Riggs' disease in honor of Dr. John Riggs who brought the matter before the profession. Beyond doubt dentistry would be in a very

crude condition today had it not been for Americans. Even the Kaiser was forced to acknowledge the superiority of the American dentist by employing one to look after his "imperial teeth."

WON LIBERTY LOAN HONOR FLAG.

In the final standing of trades according to the total of their subscriptions to the Third Liberty Loan in the New York district, the drug and chemical trade stands fourth with a total of \$29,614,850, being surpassed, only by the insurance, hardware, and the theatrical divisions. As a reward for 100 percent subscription, where every man and woman worker bought a bond of the Third Issue, the Advisory Trades Committee of the Rainbow Division has awarded to the following drug, chemical and allied trades firms the 100% Industrial Honor Flag:

American Cotton Oil Co., American Woodpulp Corp., Berlin Aniline Works, Bowring & Co., Bush, Beach & Gent, Inc., Carter Medicine Co., Chicle Products Co., Cone Export & Comm. Co., The Debevoise Co., E. A. Laboratories, Inc., The Elcaya Co., E. Fougera & Co., A. Klipstein & Co., National Varnish Co., New Jersey Zinc Co., Oakley Chemical Co., West Virginia Pulp & Paper Co.

ACCUSED OF UNFAIR COMPETITION.

Complaints continue to issue from the Federal Trade Commission in large numbers, the most recent being those against the Pennsylvania Specialty Company of Philadelphia, and the Warren Soap Manufacturing Company of Boston. The commission charges that these concerns have given gratuities and money to employes of customers and prospective customers as an inducement to them to influence their employers to deal with the respondent companies.

The Pennsylvania Specialty Company will be given a chance to reply to these charges before an order is issued. The case of the Warren Soap Manufacturing Company has already been settled, and the concern has been ordered to refrain from the practices named in the complaint.

DECISION ON SULPHUR PATENT.

The United States District Court of Delaware has sustained the claim of the Union Sulphur Company of Louisiana that the Freeport Sulphur Company of Freeport, Texas, had infringed the Union company's patent for extracting sulphur from the Louisiana beds. The suit was begun by the Union Sulphur Company in November, 1914, basing its claim on the process alleged to have been invented by the late Herman Frasch. The sulphur is found at depth and is brought to the surface in liquid form and solidified in tanks.

CLAYTON FRENCH MAKES BUSINESS CHANGE.

Clayton French has resigned as director of the Smith, Kline & French Co., Philadelphia, and is no longer connected with the company, of which he was vice-president. A resolution adopted by the board of directors states that his relations with the company were severed because of private reasons, and expresses great regret at the loss of his services.

MORE JAVA EMBARGOES.

Consul General Fuller has reported from Batavia, Java, in a cablegram of May 6, that the government of the Dutch East Indies had on that day prohibited the exportation of sugar, tobacco, pepper, tea, coffee, copra, petroleum, vegetable oils, hides, and skins, except under license.

Trade Notes

The Tariff Commission has invited representatives of the American surgical instrument industry to a conference in New York on Thursday and Friday, May 16 and 17, as a part of its inquiry into disturbances in American industries as a result of the war.

By consent of the United States Government and by order of the Supreme Court the alien enemy bronze powder factory of B. Ullmann & Co., Inc., located at Closter, N. J., has been sold and transferred to Henry H. Mandle and M. A. Hardwick, who have organized a new company under the name of the National Bronze & Chemical Works, with main offices at No. 220 West 42d street, New York City.

H. P. Herrfeldt & Co. say of seeds and herbs: "There has been no special activity in any one article during the week, but the demand is general and covers everything on the list. Celery seed holds firm at its recent advance. All grades of mustard seed are in very small supply. Canary seed is higher, both spot and for shipment. Greek sage continues firm. In paprika prime new crop is difficult to obtain, with practically no shipments now en route to this market."

Governor Whitman has signed Assemblyman Cowee's bill amending the labor laws so as to permit children between sixteen and eighteen years of age to be employed during the summer vacation in any mercantile establishment or business office in cities or villages after obtaining a summer vacation permit, good only from July 1 to August 31.

The Butcolnox Company, recently incorporated, is located at 506 Main street, Belleville, N. J.

The Southern Chemical and Dye Co. and the Ficker Manufacturing Co., New Orleans, La., have consolidated. The capital of the resulting company is \$50,000, and a \$10,000 plant will be built for the manufacture of dyes and glycerin.

Manufacturers of tin foil and of collapsible tubes are working with the Government on a programme looking to the conservation of tin in the raw state. The Commercial Economy Board of the Council of National Defense has had conferences with representative manufacturers in each of these lines.

The Western Chemical Company, Denver, Colo., is planning to purchase the Greenback property in Graham Park, and examinations of the property are now being made by engineers of the company. It is said that there are large deposits of pyrite of high sulphur content, and it is reported that the company is planning for extensive development work.

The National Chemical Company, with laboratories and offices at New Haven, Conn., has leased the buildings at 121-123 Lafayette street, Newark, N. J., which are four-story, brick and concrete construction, and is planning to use them as a branch manufacturing establishment.

On May 1, the Cleveland Branch of Marden, Orth & Hastings Corp. moved into new offices in Illuminating Building. Greatly increased business necessitated a change into larger quarters. The Cleveland office is in charge of Henry W. Galley, who takes care of all the trades using colors, chemicals and industrial and edible oils in the State of Ohio and in the Pittsburgh, Pa., and Louisville, Ky., Districts.

ENFORCING EXPLOSIVES LAW STRICTLY**Certified Copies of Licenses Must be Signed by the Original Issuing Office, Not by Notary Public—State Institutions Must File Licenses**

The American Drug Manufacturers Association recently requested the Medical Section of the Council of National Defense to obtain a ruling for them on the validity of copies of explosive licenses certified by a notary public. According to the ruling made by the Bureau of Mines such copies are invalid and the copies of your license that you furnish your wholesaler or require of your own customers must be certified by the officer issuing the original license, or his successor. The letter is as follows:

"1. Your communication of the 5th inst., has just been received. The writer has taken up with Mr. Boynton of the Bureau of Mines, the question of certified copies of explosive licenses and is informed that such certified copies must be signed by the original issuing officer. If for some reason the original issuing officer is no longer the issuing officer of the Bureau of Mines, his successor must sign the certified copies but he should make note on such copies that he is not the original issuing officer but is the successor of such officer.

"2. Certified copies cannot be issued by a notary public unless such notary public is the authorized issuing officer of the Bureau of Mines. Of course all authorized issuing officers have notary powers. This, of course, means that the certified copies issued by notaries who are not so authorized by the Bureau of Mines are valueless and new certified copies must be obtained."

The legal counsel of the American Drug Manufacturers Association recently gave one of its members the following opinion, according to which you cannot furnish explosive substances to state or municipal institutions, etc., without requiring evidence that they have taken out an explosive license as in the case of private persons.

"Answering your letter of April 18: Section 4 of the law provides that the word 'person' when used herein, shall include states, territories, the District of Columbia and other dependencies of the United States and municipal subdivisions thereof, individual citizens, firms, associations, societies, and corporations of the U. S. and of other countries at peace with the U. S.

"These rules and regulations emphasize this provision of the law by special mention thereof.

"You cannot furnish 1000 potassium chlorate tablets, 5 grains, to the state hospital without having on file a properly certified copy of its license, notwithstanding it is a state institution."

STOCKS OF PLATINUM COMMANDEERED

All platinum, iridium and palladium held by refiners, some importers, manufacturing jewellers and large dealers have been commandeered by the Government. The price fixed for platinum is \$105 an ounce; for iridium, \$175 an ounce, and for palladium, \$135 an ounce (troy weight).

Manufacturing jewellers may use 25 per cent of their present stocks for commercial purposes by signing a waiver of all claims for compensation from the Government by reason of the requisition.

W. W. Battle, city chemist of Dallas, Tex., has been elected secretary-treasurer of the Central Texas Section of the American Chemical Society. Dr. G. S. Frapps, state chemist, is president; F. B. Porter, Fort Worth, vice-president; and Dr. E. P. Schoch, University of Texas, counsellor.

Business Brevities

The Marell Chemical Co., Inc., has moved its general offices to the warehouse which it has occupied for some time, Fulton and Front streets, Brooklyn.

There are persistent rumors that outside capitalists are preparing to build a big electro-chemical plant near Niagara University, north of Niagara Falls, N. Y.

Representative McCormick has introduced a bill in Congress, permitting the payment of one-half of the income and excess profits taxes on or before June 15 and one-half on or before Oct. 15.

Heaton's Annual, a commercial handbook of Canada, is an official directory of transportation, customs information, postal rates and government officials and regulations. It also contains descriptions of towns and information concerning opportunities for manufacturers to locate in Canada. The customs tariff is given in full.

Every employee a bond buyer was the record of E. Fougere & Co., Inc., who reported 100 per cent. subscription by their employees to the Third Liberty Loan, \$10,300 having been subscribed. The firm itself has subscribed liberally to each loan to date. Through the activities of M. M. Sterling, of E. Fougere & Co., the Crescent Athletic Club and Rifle Range in Brooklyn has been thrown open to soldiers and sailors.

A regular meeting of the Rochester Section, American Chemical Society, was held in Reynolds Laboratory building at the University of Rochester, last week when Dr. E. M. Chamot, professor of chemical microscopy, sanitary chemistry and toxicology at Cornell University, delivered an address on "The Microscope in the Industries." Prior to the meeting a dinner was held at the Rochester Club at which Professor Chamot was the guest of the section.

The committee appointed by Secretary McAdoo to co-operate with the Commissioner of Internal Revenue in studying the situation in relation to the enforcement of the anti-narcotic laws and the problem of safeguarding the army camps from illicit vendors of drugs, comprises H. T. Rainey, of the House Ways and Means Committee; B. C. Keith, deputy commissioner of Internal Revenue; Dr. A. G. Du Mez, of the Public Health Service; Lieutenant-Colonel Pierce Bailey, of the War Department.

Gaston, Williams & Wigmore, Inc., have issued two trade pamphlets illustrating and describing their engineering and construction department and the Globe Line, owned by them, and employed in distributing goods ordered through the company's numerous foreign connections. The "G. W. W. Bulletin" which tells about foreign trade has special articles on Argentine by Frank J. Bovey; Selling Automobiles through Foreign Dealers, by F. L. Emmons; Work, by George A. Gaston; and the Progress Made in Manufacturing Straw Hats and Bonnets, by John S. Stevenson.

The Pfandler Company, Rochester, N. Y., manufacturers of tanks for chemical purposes, has come to the aid of the Federal government by volunteering the use of its Lincoln Park plant for laboratory purposes to students who will be sent there to attend a special course on employment management. The course is made necessary by the shortage of labor managers. The first students are expected to be sent there by the Emergency Fleet Corporation, Ordnance Department, Quartermaster's Department, Department of Labor and the War Industries Board.

The Foreign Markets

WAR BURDENS HAMPER LONDON TRADE

Drug and Chemical Houses Feel Effect of Raising the Age Limit to 51 Years—Heavy Taxes Foreseen in New Budget

(Special Cable to DRUG & CHEMICAL MARKETS)

London, May 14.—The budget presented by the Chancellor of the Exchequer makes it plainly evident that the immense increases in expenditure will have to be met in large measure by present additional taxation and the provision of funds to cover the interest and annual repayments of the national debt. The government proposals as to man-power, raising the age-limit to 51, threaten to curtail business in every line.

These two important political events taken in conjunction with the German offensive in the west, now at its height, have had a visible influence this week in all our markets, and buyers have been scarce. At the same time a certain amount of cheerful optimism is general and the business outlook is by no means unpromising. The influence of government measures has had the effect of stopping to a large extent speculation, monopoly dealings and profiteering so that if our markets are understocked they are unusually healthy for war-times and leave little room for possible landslides and panics.

The few features of interest are: Acetanilid dearer at 5s 9d to 6s 6d per lb. as to quantity. Bismuth preparations, although under restriction are firm and in good demand. Bromide of potassium has eased off somewhat in the face of Japan supplies but the other salts are increasingly firm to dearer. Camphor refined is creeping up in price. Japanese slabs are 4s 8d pr lb. Camphor oil, Japanese white, is now held for 155s pr cwt. Little if anything is advised as shipped, and your latest New York prices are much below our parity.

Cassia oil, 80% to 85%, costs now 7s pr lb. and is firm. Clove oil, English distilled, is firm at 21s pr lb.

Cocaine hydrochloride is scarce and very restricted as to import and export, and commands 53s to 55s pr ounce.

Cream of tartar is 425s per cwt. Paraldehyde is arriving more freely from America and price has eased off to 11s per lb.

Benzoates have been placed in the prohibited list for export to all quarters, but benzoate of soda, which is not yet a British product, is in good demand, spot stocks having been cleared entirely, at 19s per lb. Benzoic acid, now made here, costs 17s 6d to 18s pr lb., but the output is inconsiderable and below requirements.

Chloral hydrate at 12s 6d to 13s 6d duty paid is higher and scarcer.

Gum Elimi has been little heard of lately but interest is revived at the asking price of 145s pr cwt. in the absence of arrivals and small stocks.

Antimony, crude, at £45 to £50 pr ton. Arsenic white powder at £126 pr ton and potassium permanganate offered down to 12s per lb. are all lower.

War-risk insurance, doubtless in consequence of the much lower returns of losses by the "U" boats, has been drastically reduced—fully 50% on shipments by British steamers plying between London and United States ports.

The stagnation in the trade has extended even to the drug auctions. The one held on Thursday was featureless. Only a small proportion of the offerings changed hands. As a general rule prices were higher. Honey is plentiful and ten per cent cheaper. Buchu leaves were well maintained. Eucalyptus oil is plentiful and easier.

Ipecac (Rio) is holding steady. There are fair supplies of sarsaparilla, but prices are going up gradually. Tinnevely senna leaves are quiet and unchanged. The benzoates are substantially higher.

The quotations on Curacao aloes, camphor oil and citric acid were raised again today. There is a firmer tone in sodium hyposulphite and tartaric acid.

Phenacetin, potassium bromide and calamus are lower.

FRENCH EXPORT PROHIBITIONS

A French ministerial decree of April 18, published April 19, prohibits the exportation or reexportation from bond or warehouse or in course of transit or transshipment of the following articles:

Pyrogallol acid; apparatus or parts thereof in quartz and other acid-proof material; brooms of sorghum fibre, burners for acetylene; teak wood; carbonates of lead, either in the natural state or mixed with fatty matter; jam with or without sugar; celluloid articles; combinations of iridium, nickel, strontium, tungsten compositions, and products used for electric insulation; graphite, pure or mixed; vegetable ivory and corozo buttons; lemon, orange, or lime juice and citrates; typewriters; the following metals, either pure or alloyed, and their combinations—iridium, palladium, osmium, rhodium, and ruthenium; oxalates and oxides of lead (minium and litharge) and stanniferous waste salts and combinations of lead; refractory pottery and bricks with magnesium as a base; sulphur and pyrites extracted from refinery waste; thiosulphates and polythionates.

TAX RULING ON GOODS SOLD ABROAD

B. C. Keith, deputy commissioner of Internal Revenue, has ruled that taxes imposed by Section 600 of the Act of October 3, 1917, upon articles sold by the manufacturer, are not to be assessed in the following cases:

"First—Those who manufactured abroad and sold abroad.

"Second—Those who manufactured here and made consignments abroad for the benefit of agents who secured orders and sold them in foreign countries.

"Third—Orders received from traveling salesmen of the manufacturing concerns taken from foreign buyers and where goods were shipped direct against their orders."

These three classes Mr. Keith claimed were exempt from the 2 per cent tax, but where a house should receive orders direct from a customer without the intercession or solicitation of one of their representatives, either resident or traveling, they would be liable for tax.

Further, that orders placed by commission houses and paid for by the commission house to the manufacturer would not be exempt, even were the goods put aboard the steamer by the manufacturer with definite marks of destination.

Notes on New York Imports.

George Lueders & Co. received importations of 1,900 pounds of various kinds of essential oils.

Some 5,000 pounds of fusel oil were imported by Honeywell Brothers, and 7,000 pounds by Vincente Vilalta.

Old & Wallace received an importation of 3,000 pounds of cardamom seed from the Far East.

F. H. Cone is credited with an importation of about 34,000 pounds of sandalwood.

Over 24,000 pounds of citronella oil from Ceylon arrived, recently, consigned to W. H. Peabody & Co.

About 247,600 pounds of crude tartar was consigned to the Tartar Chemical Co.

Importations of over 39,000 pounds of coconut oil have been received by the Boyer Oil Co., and 1,000 tons in bulk were consigned to the Nucao Butter Co.

Winter, Son & Co. received importations during the week comprising about 13,000 pounds of nutmegs from Singapore.

Over 13,650 pounds of various medicinal roots formed a consignment to the order of McLaughlin, Gormley & King.

Some 15,000 pounds of gentian roots was imported recently by the Murray & McNickell Manufacturing Co.

Vincente Vilalta imported carbonate of potassium to the amount of 80,000 pounds. The Transatlantic Commercial Co. received about 18,000 pounds.

About 182,000 pounds of citrate of lime comprised an importation by Harshaw, Fuller & Goodwin Co. The Tartar Chemical Co. is credited with an invoice of 134,750 pounds.

The largest importations of copra during the week were made by Spencer, Kellogg & Co., amounting to about 160,000 pounds, while 446,000 pounds and 284,400 pounds were consigned to the Kellogg Products Co. and G. Amsinck & Co., respectively, all shipped from the Philippine Islands.

Among the largest receivers of vanilla beans were J. N. Limbert & Co., with a consignment of 18,500 pounds, and Dodge & Olcott Co., 16,700 pounds.

The American Trading Co. received an importation of over 3,000 pounds of tonka beans.

HEAVY EXPORTATION OF ALCOHOL

It is reported in export circles that Llata, Lowenberg & Schlegel, Inc., have negotiated for the shipment of more than 250,000 gallons of 150 per cent proof grain alcohol to Switzerland. Much red tape had to be unwound, it is said, before the permission of the War Trade Board could be obtained to forward the consignment, which constitutes probably the largest single shipment of grain alcohol to leave the country since the United States entered the war.

South American Quinine

By F. H. PUTT

European domination of our quinine market need not last forever, just because we always have paid tribute to Holland and Germany. We have suffered too much from ignorance and custom in many lines of business. For instance, why did we year after year, buy our ferromanganese abroad, when we had the makings right here at home? Where were all our captains of the steel industry? Were they too busy keeping up stock values to try out the boasted Yankee inventive ability to make ferro? We have suddenly found we can make ferro, so the reason must have been that nobody had the nerve to try before this.

We go on importing roots, leaves, and seed from abroad, when we could be raising at least half of them right here, and get a better product. We pay freight on bulky quinine bark containing one hundred pounds of total quinine alkaloids to the ton. We handle that bark with expensive help, in an expensive factory, and are at the mercy of foreign owners for our supply. It would be a safe bet that there is not a house in the United States manufacturing quinine, which employs a chemist who could tell a cinchona tree if he ran into one. Our makers depend on Uncle Sam's custom house employees to inspect barks for them. If we made our quinine in an American owned and American managed plant located right among the quinine trees, it would be profitable to handle much lower grade barks than are necessary when the freights are so high. Furthermore, the freight on the alkaloidal content of a ton of bark would be but a mere fraction of the freight on the bark itself.

Quinine originally came from South America. Their best varieties were transplanted to the East Indies, where cheap labor was plentiful, and where the plantations would be under the flag of European nations. Today communication with South America is ample for the quinine trade, and it would be feasible to plant groves and duplicate the Indian and Javanese plantations; but it happens that there are districts where trees are plentiful enough, and run high enough in quinine, to supply a large factory right from the minute when it can consume the bark, without having to wait on new plantations to come into bearing. Since 1910 the writer has scoured South America to locate a district which would combine the necessary features of accessibility, quantity and quality of bark supply, and he sent Dr. H. H. Rusby of the College of Pharmacy of Columbia University, to cruise the districts and report on the feasibility of manufacturing locally.

Dr. Rusby organized an expedition which spent the dry season of 1917 in South America. He reported most favorably, and from the data he established a half million dollar corporation was organized to market quinine in all its forms, and many other alkaloids from tropical plants which are available in the district where it will operate. Its stockholders are men in the drug trade who can push their company's business. In addition to Dr. Rusby, the scientific staff consists of E. B. Putt, president of the Youngstown Chemical Company, and Dr. H. A. Seil of the Standard Chemical Company of Pittsburgh. Both are well known experts in alkaloids and have appeared in many prosecutions by the government under the Food and Drugs Act. The final purification and separation of the alkaloids, as well as the preparation of the salts will be done in another plant located in the United States, so as to avoid the necessity of a large force of expensive men at the Southern factory. By the end of 1918 we expect to be shipping lots of quarter million ounces, and to be in a position to give Holland quinine successful competition in peace time.

Color & Dyestuff Markets

DYEWOODS AND DYE BASES HIGHER

Benzidine and Benzoate of Soda in Better Demand—Albumen Continues Scarce—Active Inquiry for Dimethylaniline—Coal Tar Crudes Dull

With the exception of the coal tar crudes prices have advanced on practically all important items in the general list. The increasing difficulties in getting dye bases and dyewoods from primary points, coupled with the fact that the demand is heavier, has caused importers to become quite bullish in their ideas of prices. This is especially true of divi, logwood and cutch. In the list of intermediates, dimethylaniline is perhaps the item that is in strongest demand, and with supplies light, prices are tending upward. Benzidine and benzoate of soda show improvement, and judging from the number of inquiries that are being received in this market, there will be considerable activity in these two products in the near future.

Supplies of albumen are by no means sufficient to take care of the consumer call and in some quarters importers of the Chinese egg continue to quote nominally. The various grades of cochineal also show a sharp advance this week and it is said that stocks available are hardly sufficient to take care of the business being placed. Cutch is in unusually strong demand and the majority of holders are asking higher prices than those heard a week ago. Divi divi, fustic, gambier, indigo and the various grades of logwood have been moving briskly to consumers and seemingly the firm condition now noted will continue for some time.

Benzol has ruled quiet and in some quarters lower prices are heard. Lower figures have also been named on flake naphthalene in car lots and although supplies are not abundant, there is sufficient quantity in this market to take care of more business. Offerings on phenol have been more liberal this week, and from a number of directions lower prices are named. Toluol is scarce and prices are nominal, and it is only in cases where users of this material are hard pressed for stocks that they will buy available small lots at the quotations now asked.

There is a better demand for sulphanilic acid, but prices have not advanced as there has been an accumulation of stocks due to the lull in trading. H acid and naphthionic acid are attracting much more attention from consumers and prices are tending upward. The demand for aniline oil and salts has been steady and owing to the cost of drums, higher prices are heard. Benzoate of soda and para-amidophenol have firmed up again after being neglected by the large users, and for the latter material there has been a decidedly bullish tendency on the part of holders.

Dye Bases and Dyewoods

Albumen—Where quotations were available they ranged from \$1.05 to \$1.10 a pound for the Chinese egg; 90c. to 95c. a pound for the imported blood, and 55c. to 60c. a pound for the domestic blood. Although there has been an improvement in arrivals of stocks of albumen from the Orient, they have not been large enough to cover all orders and prices in some quarters are quoted nominal for all varieties.

Cochineal—The silver Teneriffe has advanced to 60c. @ 68c. a pound which are higher prices than have been heard in this market for a long time. The rosy black variety has also advanced, owing to an unusually heavy demand, to 67½c. @ 68c. a pound. No change in price has been reported on the gray-black which remains

steady at 54½c. @ 55c. a pound. Small quantities of the Madras variety have arrived during the week, but these stocks apparently went into immediate consumption and did not reach the open market. The inquiry for cochineal is particularly active at this time and trading in the spot market has been of considerable volume.

Cutch—All grades of cutch show improvement and prices in most directions are higher than a week ago. From 19¼c. to 20c. a pound are the figures named for the Rangoon in boxes on the spot, with stocks for delivery firm and unchanged at 16c. @ 17½c. a pound. Owing to speculation on the extract wide price ranges have been heard, 12c. to 15c. a pound being quoted in the spot market.

Divi Divi—From \$68 to \$74 a ton has been the price named for divi divi in the spot market. There have been fairly large arrivals during the week, but importers say they would rather hold stocks than to shade prices at this time. The demand has been particularly active and it seems that prices will hold at the above levels in view of the difficulties in getting supplies from primary points. Much interest is centered on forward positions, but few are quoting because of shipping conditions.

Fustic—According to point of origin prices for the fustic sticks have ranged from \$39 to \$60 a ton for spot stocks and over the month of May. For the young roots quotations are from \$35 to \$38 a ton. The chips are unchanged at 6½c. @ 7½c. a pound, and the solid fustic at 24½c. @ 25½c. a pound. No price change has been reported on the 51-degree liquid which is quoted firmly at 13c. to 15c. a pound. The New York fustic market closed unusually active at the above prices and all indications pointed to further advances in view of the strong inquiry.

Gambier—The demand for gambier is especially heavy and some importers are booked far ahead. Trading has been confined to small quantities owing to the light supplies. For spot and nearby stocks of the common gambier sellers are quoting 25¼c. to 26¾c. a pound, and 22c. to 23c. a pound for the plantation kind.

Indigo—The New York market has been very active, but prices held at former levels owing to the quantities of stocks on hand. Closing figures were \$2.75 to \$3 a pound for the Oudes; \$2.50 @ \$3 a pound for the Bengal; \$2.75 @ \$2.90 a pound for the Guatemala; \$1.10 @ \$1.40 a pound for the Madras, and 54c. to 56c. a pound for the paste.

Logwood—Arrivals of the stick and chips have been especially heavy recently, but few importers have been inclined to lower prices in view of shipping conditions. For the sticks prices have ranged from \$36.50 to \$39.50 a ton. The chips are in strong demand at 2½c. @ 3¼c. a pound. The solid logwood was quoted at 19c. @ 22c. a pound, according to quantity, and the 51-degree twaddle at 10½c. @ 11¾c. a pound. Because of light supplies and a heavy demand the crystals are unusually firm at 20c. @ 25c. a pound.

Coal-Tar Crudes

Benzol—With spot supplies of benzol abundant and the demand light the local market has ruled unusually quiet during the week and prices continue downward. The majority of large consumers hesitate to stock up for a long period, and where contracts are being made

for any length of time, the business is placed at an attractive figure. In small quantities prices range from 30c. to 31c. a gallon, while in some quarters holders of spot material are quoting 28½c. to 29c. a gallon.

Naphthalene—At the close of the New York market the condition was reported as quiet with prices for spot and nearby stocks a shade easier. There is not a great deal of spot flake available, but a number of holders are shading prices on firm bids. Prime flake was available at 10¼c. to 10½c. a pound, in carlots, while for smaller quantities holders were quoting 10¾c. a pound. The demand for naphthalene balls is steady and prices are firm at 12½c. to 13¾c. a pound, according to quantity.

Phenol—Another quiet week has passed on phenol and where offerings have been made prices are lower. It appears that consumers are not inclined to place large orders at prevailing prices, and the general tendency of the market is easier. On firm bids 51½c. a pound could doubtless be secured as the inside, but 52¼c. a pound is the maximum. From one reliable quarter, drums in carlot quantities, were quoted at 50c. to 51c. a pound. The market is unsettled in view of freer offerings and little interest on the part of users. Speculation in this product is keen.

Toluol—Actual holders of toluol are hard to locate, although a few scattered drums are found occasionally. Spot stocks that have passed to consumers have been quoted at \$5.65 to \$5.90 a gallon, according to quantity. The Government continues to take over the best part of the production.

Intermediates

Acid H—Although supplies on hand are sufficient to take care of more business a decided improvement is noted in this acid and prices are firmer at \$2.30 to \$2.50 a pound. For several weeks there has been a better inquiry from important users and apparently these inquiries have now developed into actual orders. There is much speculation in this material at the present time.

Acid, Naphthionic—A better consumer call has been reported on naphthionic acid and in some quarters slightly higher prices are heard. For spot and over the month of May quotations are \$1.35 to \$1.45 a pound for the refined, and \$1.10 to \$1.20 a pound for the crude. Supplies are still sufficient to take care of all the business now being placed.

Acid, Sulphanilic—The inquiry for this acid has been fairly active and trading in the spot market has been brisk. Prices are firmer at 30c. to 32c. a pound for the crude and 42c. to 44c. a pound for the refined. Not in some time has there been the consumer interest that is now being shown for this material.

Aniline Oil and Salts—Prices were decidedly firm at the close at 25¾c. to 26¼c. a pound, drums extra, for the oil on spot. Prevailing quotations for the salts have been 31c. to 32c. a pound, according to quantity. Considerable buying interest is now shown by large consumers of both the oil and the salts.

Benzoate of Soda—Not much change in price has occurred on benzoate of soda during the week. Spot stocks are available at \$3.90 to \$4.00 a pound, and perhaps on firm bids the inside figure could be shaded. The acid is firm at \$4.15 to \$4.30 a pound. The demand for the soda is steady with supplies sufficient to take care of the business being placed.

Benzidine—The base is firm at \$1.75 to \$1.85 a pound and the sulphate in steady demand with prices ranging from \$1.40 to \$1.50 a pound. Both varieties have been in good call during the week, and indications are that the above prices will hold in view of an active inquiry and light spot supplies.

Dimethylaniline—The consumer demand is especially heavy, and in some quarters factors are quoting prices nominal. Not in some time has this item been in such scant supply, and holders of spot material are quoting 67c. to 70c. a pound.

Para-Amidophenol—The demand for this material has been steady during the week with prices ranging from \$3.75 to \$4.00 a pound for the base and from \$4.10 to \$4.25 for the hydrochloride. Supplies on hand while not abundant are seemingly sufficient to take care of the business being placed.

Ortho-Toluidine—No important change is reported in prices this week, and for the most part business has been largely of a routine character with quotations at \$1.25 to \$1.35 a pound. For the para-toluidine the price is unchanged at \$2.25 to \$2.35 a pound.

Dyestuff Notes

The Board of United States General Appraisers, New York, has overruled the protest of B. F. Drakenfeld & Co. against the assessment of duty at 15 per cent on ceramic colors under paragraph 63 of the tariff act of 1913. The importers claimed the colors were dutiable at 10 per cent under paragraph 65 of the act of 1913.

The National Aniline & Chemical Company has leased the entire building at Broad and Wallace streets, Philadelphia, in addition to space in the Warner Building adjoining at 639-43 North Broad street, and will remove its plant to this location. Plans for alterations and improvements in the structure are being prepared.

Brown will be the leading color for next fall and winter, if the prediction of Rodier, Paris, France, counts for anything. He is now displaying a color card four feet long by one foot wide on which are shown scores of shades of brown. Rodier's word is usually taken as authentic in Paris and he shows no hesitancy in declaring that he is confident that brown will be the leader for the fall and winter.

Jamaica possesses in logwood and fustic two valuable dyewoods. Since the beginning of the present war the value of these products has greatly advanced and materially added to the volume of the country's exports. The impossibility of obtaining dyestuffs from certain European sources created a large demand for these dyewoods, with the result that present market prices are: For logwood, \$21 to \$25 per ton, and for fustic, \$13 to \$17 per ton, as compared with prewar prices of \$10 to \$12 per ton for logwood, and \$8 to \$12 per ton for fustic.

Rapid progress has been made during the week in the erection of a new acid fume absorption works at the plant of the Butterworth-Judson Corporation, Avenue R, Newark, N. J. This will allow, it is expected, the immediate operation of the complete plant, about one-half of which has been closed temporarily by the city owing to complaints of the neighboring community. Approximately 60 per cent of the picric acid production is used for high explosive shell manufacture, and a great effort has been made to operate the works at capacity at the earliest possible moment.

Williamson & Company, 120 Broadway, New York, brokers and dealers in drugs and chemicals, have leased a four-story building at 26-30 Burling Slip at an aggregate rental of about \$50,000. The company is planning for extensive alterations and improvements in the structure, which will be known as the "Williamson Building" and used for office purposes.

Heavy Chemical Markets

HIGH PRICES RESTRICT TRADING

Demand for Acids is Strong, But the Government Continues to Absorb Supplies—Alum Prices Firm—Consumers Showing Little Interest

Not in a long time has there been such a quiet condition in heavy chemicals as was noted during the week just closed. Speculation has been the outstanding feature, and where price changes have occurred they have been downward for the most part. There has been a fairly good inquiry from the majority of consumers, but apparently they are not inclined to pay the prices that are being asked by holders of spot materials. Caustic soda and soda ash have been almost entirely neglected and prices named by holders are decidedly lower than those heard a week ago. Nothing new is heard in the acid situation, and in the majority of cases prices continue nominal.

The demand for acetic, muriatic, nitric and sulphuric acids continues just as strong as it has been for some time, but since the Government is taking practically the entire output, few prices are heard for spot material in the open market, and where offerings are made they involve only small lots. From time to time releases are made in order to tide over those who are in urgent need of supplies, but otherwise trading in acids has been nil.

Business that has transpired on the various grades of alums has been largely of a routine character, but prices are holding firm at previous levels owing to the active inquiry. Supplies of alums are by no means abundant, and for this reason holders of spot materials are not inclined to do a great deal of shading despite the present lull. The easier tendency that was noted last week on aluminum sulphate continues, and in view of the light consumer inquiry there is every reason to believe that prices could be shaded on firm bids. Practically no consumer interest is manifested on bleaching powder, and prices named in a number of quarters are lower than those heard a week ago.

Only moderate interest is being shown for any available stocks and while large factors are quoting, in some instances, at levels that prevailed a week ago, there is every reason to believe that considerable shading could be done on any item in the list if a firm bid was made. Perhaps one of the chief reasons for the present lull is that the majority of large consumers have sufficient stocks to tide them over for the time being, and then too, there continues a "watchful waiting" policy on the part of a number of buyers as to just what the Government will do in the matter of further price fixing and restrictions.

Acid, Acetic—The present requirements of the Government for acetic acid are so large that practically the bulk of the production is going in that direction. The demand from consumers continues strong, and where sales have passed in the open market only small quantities have been involved. The glacial acetic remains nominal at 38c. to 39c. a pound, according to quantity. Small lots of the 28 per cent test have been quoted at 15¾c. to 16c. a pound. For the 56 per cent test prices have ranged from 27¾c. to 28c. a pound. So far as can be learned there has been no trading in the 70 or 80 per cent acetic.

Acid, Muriatic—Where prices were obtainable on muriatic they were unchanged at 2c. to 2½c. a pound

for the 18 degree; 2½c. to 3c. a pound for the 20 degree, and from 2¾c. to 3½c. a pound for the 22 degree material. The Government continues to absorb the bulk of the production of this acid, and although plants are now working overtime, little material is reaching the open market.

Acid, Nitric—The demand for nitric acid is unusually heavy at this time, and it is only in cases where users are in urgent need of supplies that the Government will make releases. The only stocks that have passed to consumers have been the 40 degree, which is quoted at 8¾c. 9½c. a pound, and the 42 degree which continues to be held tightly at 9½c. to 9¾c. a pound. Only small quantities of any tests of nitric have been offered in the open market during the week.

Acid, Sulphuric—All sulphuric acid is in unusually heavy demand from consumers, but as with the other acids the Government continues to take such large quantities that makers are unable to meet the outside demand and take care of the Government's requirements at the same time. Pyrite material is entirely out of the local market and quotations remain nominal. There have been fair quantities of the 66 degree brimstone available in the New York market during the week and prices have ranged from \$35 to \$40 a ton. Oleum is still available at \$60 to \$65 a ton. Prices are entirely nominal on battery acid due to the scant spot supplies.

Alums—Little new is reported in the New York market on any of the alums. For the most part the market has ruled unusually quiet. There continues a steady inquiry, however, and considerable underlying strength is noted. Closing prices were 4½c. to 5c. a pound for the ammonium lump; 9c. to 10c. a pound for the potassium lump; 20¾c. to 21¾c. a pound for the potassium chrome, 18½c. to 19½c. a pound for the ammonium chrome.

Aluminum Sulphate—From 3½c. to 4c. a pound is the prevailing price for the high test aluminum sulphate, while the low test, or commercial, is held at 2¼c. @ 2½c. a pound. Supplies, while not abundant appear to be sufficient to take care of more business. The above prices are slightly lower than those of a week ago and trading has been chiefly of a routine character.

Bleaching Powder—Nothing new is reported in bleaching powder and since the majority of manufacturers have curtailed their production there has been no great accumulation of stocks despite the fact that trading is nil. Bleaching powder has been neglected by consumers for several weeks and there is nothing to indicate there will be any immediate improvement. For stocks in export drums 2¼c. a pound is the price, although in some directions ¼c. higher continues to be heard. From 2c. to 2½c. a pound was the closing price for domestic drums.

Copper Sulphate—Supplies of copper sulphate on hand are not abundant, but are apparently sufficient to take care of more business at this time. Because of a large number of inquiries there remains considerable underlying strength to the local situation. A number of large factors in the New York market continue to quote 9c. @ 9¼c. a pound for the 98-99 per cent material, with second hands quoting 8½c. @ 8¾c. a pound.

Lead Acetate—Closing prices were steady at 15¾c.

@ 16½c. a pound for the brown sugar; 17½c. @ 17½c. a pound for the white crystals; 16 @ 16½c. a pound for the broken cakes, and 17½c. @ 18½c. a pound for the granulated. Supplies of acetate of lead in the spot market are not particularly large, and in view of the many inquiries that are being received holders are not inclined to do a great deal of shading regardless of quantity or buyer.

Potash, Caustic—The demand for this material is reported as only fair, but by no means pressing and it is stated that supplies on hand are large enough to take care of more business. Prices for the high test material range from 83½c. to 84c. a pound, on spot, while the low test is quoted at 63c. @ 63½c. a pound.

Potassium Prussiate—In view of light spot supplies and a good inquiry this material has held firm during the interval with prices for the domestic yellow at unchanged levels at \$1.18 @ \$1.25 a pound, and from \$2.85 to \$2.95 a pound for the red. Some stocks have reached this market from Japan, but prices on both the red and the yellow prices are nominal.

Soda Ash—Little buying interest has been manifested during the week on soda ash and the situation at the close was unusually quiet. Where sales have passed lower prices have been named for stocks in bags as well as for stocks in barrels. There is a fairly active inquiry, but little large business has developed. In the majority of instances sellers of spot barrels were quoting \$2.75 @ \$3 per hundred pounds, according to quantity. For stocks in bags prices have ranged from \$2.40 to \$2.50 per hundred pounds, and as low as \$2.25 was heard.

Soda, Caustic—Another quiet week has passed on caustic soda, although at the close there appeared to be a little inquiry for spot and nearby stocks. Offerings have been made freely at \$4.50 @ \$4.75 per hundred with few large buyers. Over the balance of the year the price has been in the neighborhood of \$4.75 per hundred pounds. Supplies, it is said, are fully ample to take care of more business.

Sodium Nitrate—Nothing new has been reported on this material. The Government is supervising the distribution of stocks arriving here from South America, but occasionally small sales have been heard at prices that ranged from \$5.75 per hundred pounds up.

In The Chemical Field

The Superior Chemical Co., Joliet, Ill., was awarded the contract for 20,000 pounds of aluminum sulphate which are to be furnished to the Rock Island arsenal.

That part of the Butterworth-Judson Corporation plant between Avenue R and the Passaic river, Newark, N. J., has been closed by order of Mayor Gillen and will remain closed until the construction of a tower to carry off the fumes is completed.

A contract has been executed between the Sutton Chemical Company and the United States Government, under which a new chemical factory is to be built at Sutton, W. Va., at a cost of \$300,000. The entire output of the plant will be taken by the Government.

The plant of the British-American Chemical Company, Ridgefield Park, N. J., which is working on Government contracts to supply heavy chemicals for war purposes, will be enlarged at an expense of \$1,500,000. It is understood that the construction will be under the supervision of the Government.

Chemicals in the South

Under the impetus of war, we are awakening to the enormous value of great natural resources within our borders which formerly were left to go to waste or lie undeveloped. The South, in particular, offers immense possibilities of future development, both in the supply of basic raw materials and in the manufacture of finished products. A cheap source of motive power is one of the chief requirements for the successful utilization of the vast natural resources of the South, and the great Mussel Shoals water-power project, which the United States Government has undertaken, will make this possible.

The Tennessee River is the greatest of the power streams of the South, and the greatest source of undeveloped power on the Tennessee is at Mussel Shoals in northern Alabama, where it is estimated 660,000 horsepower of energy are just flowing to waste. The project calls for three dams, of which Dam No. 1, a small structure 15 feet high and 300 feet long, is provided solely for the purpose of improving the navigable channel. The greater of the power dams is Dam No. 2, about 104 feet high and 4500 feet long, which together with a 850-foot power house will contain 1,200,000 cubic yards of concrete. The great Roosevelt dam on the Salt River in Arizona contains only 240,000 cubic yards of concrete, and the new Croton dam of the New York water supply only 855,000 cubic yards. According to present plans, the electrical installation at Dam No. 2 will amount to 480,000 horsepower, with giant units each developing 40,000 horsepower. Fifteen miles upstream from Dam No. 2 is the site of Dam No. 3, which will be 40 feet high and 6,425 feet long, making it the longest dam in the world, exceeding the length of the great Assouan dam in the Upper Nile by 25 feet. Construction of the first of these two great power-dams is about to begin under the direction of Col. Hugh L. Cooper, builder of the Keokuk dam and an engineer of international reputation. Estimates approved by U. S. Army engineers place the cost of power when developed at Mussel Shoals at \$7 to \$9 per horsepower-year, or less than 1.5 mills per kilowatt-hour, as compared with the cost of power developed at Niagara Falls which ranges from \$10.50 to \$20 per horsepower-year, or 1.6 mills to 3 mills per kilowatt-hour.

Commenting upon the significance of this great hydrochemical project in the development of the vast resources of the South, *Metallurgical and Chemical Engineering* says: "First and foremost we need within our borders, and preferably within the safety area fixed by the War College, the necessary plants for the fixation of nitrogen to provide nitric acid and ammonium nitrate for explosives, dyestuffs and fertilizers. No stronger endorsement for Mussel Shoals can be brought forward than the fact that here the government is expending \$30,000,000 in a vast establishment for the fixation of nitrogen. Mussel Shoals is surrounded by iron ores of great richness and the reserves are estimated in the hundreds of millions of tons. For many years the locality has had its blast furnaces, and during the past year it has shipped many tons of pig iron to Illinois. With the advent of cheap power, with an abundance of raw materials, and with the unexcelled supply of labor, the time seems not far distant when the South will do far more of its own manufacturing."

MAKING ALCOHOL FROM SOTOL

A firm is making alcohol at Ciudad Juarez, Mexico, from a plant called sotol, which grows abundantly in northern Mexico and western Texas. It is said the plant can be gathered at a cost of from \$2 to \$5 per ton, and that from 1 ton of this plant from 18 to 25 gallons of alcohol, 180 proof, can be made. The local plant is expected soon to produce, at its full capacity, 250 gallons daily.

The Drug & Chemical Markets

PRICES FIRM ON SCARCITY OF STOCKS

Higher Prices Asked in Primary Markets for Crude Materials—Essential Oils Advanced—Thymol Declines Sharply—Narcotics Easier

Higher primary markets for numerous crude materials and scarcity of local stocks have restricted trade in drugs and chemicals. Government buying kept the market fairly well cleaned of stocks. Higher freight rates are expected, according to Washington advices, owing to increased wages to railroad employees, and this, too, will affect drug and chemical prices.

The export movement continues to be restricted under the new ruling of the War Trade Board, and in some quarters, shippers are complaining bitterly owing to the difficulties in obtaining licenses.

Narcotics closed easy with prices tending downward, due in part to larger arrivals of the crude material. Price fluctuations have been narrow and mostly upward. The only development of importance was the sharp decline of \$1 a pound in thymol. Essential oils, natural mustard and neroli bigarade scored sharp gains.

Botanicals are unsettled. Seeds, herbs and leaves have been traded in more freely, resulting in higher markets for mustard seeds with prospects of higher levels for cumin and coriander seed.

PRICES CHANGES IN NEW YORK (Original Packages)

Advanced

Aloes Gum, Cape, 1c	Licorice, Mass, Syrian, 4c
Areca Nuts, 3c	Manna, 8c
Asafetida Gum, U.S.P., 5c	Nux Vomica, 1c
Cassia Saigon, 1c	Oil of Cloves, Cans, 10c
Ergot, 5c	Oil of Mustard, Natural, \$1
Gentian Root, 2c	Oil of Neroli, Bigarade, \$5
Henna Leaves, 2c	Oil of Orris, Concrete, 5c
Isinglass, Domestic, 1c	Oil of Wintergreen, True Leaf, 5c
Kola Nuts, 3c	Senega Root, 7c
	Uva Ursi Leaves, 2c
	Declined
Amyl Acetate, 5c	Oil of Almond, Chlorine Traces.
Cloves, Zanzibars, 1/2c	25c
Glycerin, C.P., 1/2c @ 1c	Oil of Limes, Distilled, 20c
Glycerin, Dynamite, 1c	Oil of Nutmeg, 10c
Oil of Bois de Rose, 2c	Oil of Orange, Italian, 15c
	Thymol, U.S.P., \$1

Acetanilid—Among second hands prices closed easier and purchases could have been made at 70c. a pound owing to the accumulation of stocks which could not be exported. Makers continue to quote 80c. a pound.

Agar Agar—A material decrease in stocks led to a strong market. Sellers are quoting on the basis of 62c @ 63c. a pound for supplies of No. 1.

Aloes Gum, Cape—In response to light supplies and firm primary advices, prices closed 1c. higher at 15c. @ 16c a pound.

Arsenic—White arsenic was easy owing to lower prices in the West. Makers continue to quote 15 1/2c. @ 17c. a pound in New York. Aside from filling outstanding contracts, trade is quiet. First hands are asking 65c. @ 67c. a pound for red arsenic.

Asafetida Gum, U. S. P.—Prices were advanced 5c. to \$1.75 @ \$1.80 for lump and \$1.85 @ \$1.95 a pound for powdered.

Caffeine Alkaloid—Lack of demand resulted in limited sales of supplies in bulk at \$12.50 @ \$13.50 a

pound. According to reports offerings by second hands have been made at \$13 a pound.

Cassia, Saigon—Supplies of genuine all thin cassia were advanced 1c. to 58c @ 59c a pound owing to the decided scarcity here and the extraordinary demand in markets abroad.

Celery Seed—The market closed 1/2c. lower at 39c @ 39 1/2c. a pound under a routine inquiry.

Cloves—Zanzibar cloves are 1/2c. lower, being offered at 46c. @ 47c.. Amboynas are steady at 57c. @ 58c. a pound. Owing to the narrowing of supplies from Africa the trend of the market was firmer and indications point to higher prices.

Cocaine—Steady purchases by the Government have practically cleared the spot market of supplies. Prices closed strong, makers quoting \$10 for hydrochloride, granular and flake, and \$10.25 a pound for large crystals.

Codeine—No further price revisions were announced by manufacturers who repeated former quotations on the basis of \$7.30 an ounce for supplies of sulphate in 10-ounce lots for immediate delivery.

Cream Of Tartar—Inquiries among second hands are active but small supplies restricted business and only small sales at 75c. @ 76c. a pound were reported. Makers continue to quote 62c. for U. S. P. crystals and 62 1/2c. a pound for powdered. The demand for export parcels is larger.

Ergot—Russian and Spanish closed 5c. higher at 89c. @ 95c a pound. The rise is attributed to a more active demand and diminished stocks.

Foenugreek Seed—Holders raised quotations 1/2c. to 14 1/2c. @ 14 3/4c. a pound. The advance was due to light stocks and a larger inquiry.

Gentian Root—Increased activity and smallness of stocks led to an advance of 2c. to 18c. @ 20c. a pound.

Glycerin, C. P.—Eastern refiners lowered quotations to 64c. a pound in drums and 66c. in cases, showing a decline 1c. in bulk, drums added, and 1/2c. in cans. Western refiners announced a decline in quotations, to the same basis. In some quarters prices were shaded, owing to keener selling competition.

Glycerin Dynamite—Makers reduced quotations 1c. to 63c. @ 64c. a pound, which resulted in fairly good sales to explosives makers. The decline is attributed owing to keener selling competition.

Henbane Leaves—With increased production in Michigan and fair collections of wild leaves, it is hoped that there will be ample supplies to fill requirements. Handlers of domestic are quoting \$2 @ \$2.10 a pound, while Russian leaves are nominal at \$1.90 @ \$2.10 a pound.

Henna Leaves—The market closed stronger in response to advanced markets abroad and scant stocks here, together with an active demand. Exports of henna leaves, according to London advices, are prohibited to all destinations except under license. Holders advanced prices 2c. to 35c @ 42c. a pound as to quality.

Morphine—The market ruled easy under larger stocks, which, according to reports, have been held back by makers. The demand from the Government continues active and the sentiment in trade circles is improving. Makers continue to quote on the basis of

\$11.80 an ounce for sulphate in 25-ounce parcels for immediate delivery.

Mustard Seed—Sound English yellow scored a further advance of 1c. to 26c. @ 27c. California Trieste brown was raised ¼c. to 18c @ 18½c., and Bombay brown ¼c. to 15½c. @ 15¾c. a pound.

Nux Vomica—Diminishing supplies and lack of arrivals from abroad caused a stronger market which closed 1c. higher at 13c. @ 14c. a pound for whole goods.

Oil of Wintergreen, True Leaf—A further rise in prices of 5c. to \$4.30 @ \$4.35 a pound took place on reports of scant supplies and increased cost of manufacture.

Orris Root, Verona—In response to higher primary markets abroad and small stocks locally prices were advanced 1c. to 20c. @ 21c. a pound.

Opium—Arrivals continue fairly good and are increasing. An easy tone pervaded the market, but holders repeated quotations on the basis of \$23.75 a pound for spot parcels of U. S. P. in cases. Powdered and granulated closed at \$25 and \$26 a pound respectively.

Quinine—Domestic makers are still quoting on the basis of 75c. an ounce for sulphate in 100-ounce tins for immediate delivery. Trade continues quiet among second hands but prices closed higher at \$1.25 @ \$1.30 an ounce for domestic sulphate. Java quinine closed at \$1 @ \$1.10 an ounce.

Saccharin—The demand is dormant and prices closed barely steady but unchanged at \$19.50 @ \$20.50 for soluble and \$22 @ \$23 a pound for insoluble, as to brand. For contract lots it was reported prices were shaded.

Senega Root—Prices were raised 17c. to 95c. @ \$1 a pound for northern. Limited supplies, however, curtailed business.

Sodium Benzoate—Offerings were reported at \$3.75 @ \$3.85 a pound. Makers are quoting former prices for U. S. P., \$4.25 @ \$4.30 a pound.

Tartaric Acid, U. S. P.—The demand is active. Higher prices are looked for due to the strong market for the crude material. Makers are naming 82½c. for granular and powdered, and 83c. a pound for crystals.

Thymol—Larger importations and a routine demand resulted in a sharp cut of \$1 a pound to \$14 @ \$14.50 for supplies of U. S. P.

Turmeric Root—Importers advanced quotations for good Madras supplies 1½c. to 11c. @ 11½c. a pound.

Uva Ursi Leaves—Smallness of supplies and a better inquiry resulted in a further advance of 2c. to 20c. @ 25c. a pound.

There has been an increase of shipments of pepper from Hongkong during the past two years as a result of changes in the shipping trade. Declared exports of pepper to the United States in 1917 were valued at \$216,956 gold, as compared with shipments in previous years so small that they were not specified in the returns. The pepper comes from Indo-China and heretofore usually reached the United States by way of Europe. There is no reason, under normal conditions, why it should not be exported to the United States direct, and the direct trading brought about by war conditions is likely to become permanent.

The Maas & Waldstein Extract Company, affiliated with the Maas & Waldstein Company, manufacturer of chemicals, 437 Riverside avenue, Newark, N. J., has filed notice of change in its corporate name to the Belleville Extract Company.

Drug & Chemical Notes

A \$1,000,000 plant for extracting denatured alcohol and acetone from mill waste will be built by the Lamb-Fish Lumber Co., Charleston, Miss., contract having been awarded.

The American Drug Manufacturers Association has moved its office from 850 to 1049-50 Penobscot Building, Detroit, where it has double the floor space of its former quarters. Correspondents are requested to change their mailing lists.

Irish moss, bleached and powdered, will be scarce according to C. G. Weiskopf of the Republic Trading Company, and higher prices are predicted. The moss is on the Government's restricted list. The new crop will not be ready for two to three months.

The Lucas Laboratories, Inc., will manufacture Arsans A, Tri-Iods B, Guaiaco-Iods C, and Mercurans D which are compounded for specific use by the medical profession. Dr. William H. Lucas, 287 West 70th street, New York, is president; Warren C. Orten, secretary; and Josephine Lucas, treasurer.

The American consul at Kobe, Japan, writes that inquiry has come from the United States as to the feasibility of sending to America black mint plants, from which menthol crystals and oil are made. Several attempts have been made in the past to send specimens of the mint plant to America, but all have resulted in failure. They can not be sent by ordinary freight, as the two or three weeks' trans-Pacific journey dries out the roots, resulting in the death of the plants.

The new order of the Internal Revenue Department, regarding the narcotic drug situation, is being carried out in Cleveland, Ohio, by the drug association members. On inquiry by Edward F. Hellwig, president of the Northern Ohio Druggists Association, it develops that the request of the Government for the names and addresses of all drug addicts is made in order that a correct estimate may be had of the distribution of narcotics. Emil Petersilge, of the Cleveland Association also advises that he has been informed the names are required in order that men of draft age may be traced.

There is a marked shortage in most lines of drugs and chemicals in New Zealand, and since the exportation of many lines is prohibited from Great Britain, the trade depends almost entirely on American chemicals, drugs, and patent medicines. The cost of drugs and chemicals has advanced considerably. Glycerin, which could be produced a year ago for 32 cents per pound, is now quoted at 73 cents per pound. Permanganate of potash, which now sells at 36 cents per ounce could be bought before the war at 26 cents per pound. Quinine, recently quoted at \$1.33 per pound, represents a gain of 100 per cent in a year. Cocaine, which before the war sold at \$2.31 per ounce, is now quoted at \$14.60 per ounce.

LOUIS K. LIGGETT CO.'S REPORT.

The Louis K. Liggett Company has filed a statement with the Massachusetts Corporation Commission showing the financial condition of the company in 1917 compared with 1916 as follows:

	1917	1916
Cash debts received	\$787,235	\$1,063,953
Securities	1,054,981	239,150
Accounts payable	1,730,027	1,332,992
Surplus	677,581	501,250
Reserve	1,132,485	14,000
Total assets and liabilities	10,380,167	7,570,242

Prices Current of Drugs & Chemicals, Heavy Chemicals & Dyestuffs in Original Packages

NOTICE — The prices herein quoted are for large lots in Original Packages as usually Purchased by Manufacturers and Jobbers.

In view of the scarcity of some items subscribers are advised that quotations on such articles are merely nominal, and not always an indication that supplies are to be had at the prices named.

Drugs and Chemicals

Acetanilid, C.P., bbls. bulk lb.	.80	— .81
Acetone .....	.35	— .36
Acetphenetidin	3.75	— 4.25
*Aconitine, 1/4-oz. vials	—	—
Agar Agar, See Isinglass	—	—
No. 1 .....	.62	— .63
No. 2 .....	.56	— .57
No. 3 .....	.50	— .51
Alcohol 188 proof	—	— 4.93
190 proof, U.S.P.	—	— 4.95
Cologne Spirit, 190 proof	—	— 5.00
Wood, ref. 95 p.c.	90 1/2	— 92
97 p.c.	93 1/2	— 94
Denatured, 180 proof .....	.68	— .69
188 proof .....	.69	— .70
Aldehyde	1.25	— 1.45
Almonds, bitter .....	.41	— .45
Sweet .....	.28	— .29
Meal .....	.35	— .37
Aloin, U. S. P., powd. ....	.10	— .95
Aluminum (see Heavy Chemicals)	—	—
Ambergris, black	10.00	— 14.00
Grey	24.00	— 27.00
Ammonium, Acetate, cryst. lb.	.80	— .85
Benzoate, cryst., U. S. P. lb.	—	— 11.00
Bichromate, C. P.	—	— 1.20
Bromide, gran., bulk .....	.75	— .76
Carb.Dom. U.S. kegs, powd. lb.	.12	— 1 1/2
Hypophosphite	—	— 2.15
Iodide	—	— 4.20
Molybdate, Pure	—	— 7.00
Muriate, C. P.	—	— .45
Nitrate, cryst., C. P. ....	.25	— .34
Gran.	—	— 1.15
Oxalate, Pure	—	— 1.25
Persulphate	—	— .50
Phosphate (Dibasic) .....	.50	— .60
Salicylate	1.60	— 1.63
Amyl Acetate, bulk, drums. gal.	5.45	— 5.70
Antimony Chlor. (Sol. butter of Antimony) .....	.18	— .30
Needle powder .....	.13	— .14
Sulphate, 16-17 per cent. free sulphur .....	.35	— .72
Antipyrine, bulk	20.00	— 21.50
Apomorphine Hydrochloride ..oz.	—	— 31.20
Areca Nuts .....	.39	— .40
Powdered .....	.44	— .45
Argols .....	.16	— .18
*Arsenic, red .....	.65	— .66
White .....	.09 1/2	— .10
Atropine, Alk. U.S.P., 1-oz. v. oz.	—	— 47.30
Sulphate, U.S.P., 1-oz. v. oz.	—	— 37.30
Balm of Gilead Buds	37.00	— 50.00
*Barium Carb. prec. pure	—	—
*Chlorate, pure	—	—
Bay Rum, Porto Rico	3.35	— 3.50
St. Thomas	3.80	— 4.00
Benzaldehyde (see bitter oil of almonds)	—	—
Benzol, See Coal Tar Crudes	—	—
Berberine, Sulphate, 1-oz. c.v.oz. 250	—	— 3.00
Beta Naphthol (see Intermediates)	—	—
Bismuth, Citrate U.S.P.	—	— 3.50
Salicylate	—	— 3.35
Subcarbonate, U.S.P.	—	— 3.50
Subgallate	—	— 3.50
Subiodide	—	— 3.60
Subnitrate	—	— 3.30
Tannate	—	— 3.15
*Nominal.	—	—

WHERE TO BUY

SODIUM SULPHIDE FUSED & CRYSTALS ACETANILIDE, U.S.P. SPOT DELIVERY CAREX CO. 309 Broadway, N.Y.C.

Borax, in bbls., crystals .....	.07 1/4	— .08 1/4
Crystals, U.S.P., Kegs .....	.08 1/4	— .09
Bromine, tech., bulk .....	.75	— .76
Burgundy Pitch .....	.04 1/2	— .05
*Imported	—	—
Cadmium Bromide, crystals	4.20	— 4.25
Iodide	—	— 4.40
Metal sticks	1.90	— 1.95
Caffeine, alkaloid, bulk	12.50	— 13.50
Hydrobromide	10.70	— 12.00
Citrate, U.S.P.	8.00	— 8.05
Phosphate	14.00	— 15.00
Sulphate	15.00	— 16.00
Calcium Glycophosphate	1.85	— 1.90
Hypophosphite, 100 lbs.	1.00	— 1.05
Iodide	—	— 4.10
Phosphate, Precip. ....	.34	— .35
Sulphocarbonate	—	— 1.40
Calomel, see Mercury	—	—
Camphor, Am. ref'd bbls. bk. lb.	—	— 1.11 1/2
Square of 4 ounces	—	— 1.12 1/2
16's in 1-lb. carton	—	— 1.15
24's in 1-lb. cartons	—	— 1.15 1/2
32's in 1-lb. carton	—	— 1.16
Cases of 100 blocks	—	— 1.12
Japan, refined, 2 1/2-lb. slabs	1.11	— 1.12
Monobromated, bulk	3.50	— 3.60
Cantharides, Chinese .....	.95	— 1.00
Powdered	1.20	— 1.25
Russian	4.25	— 4.50
Powdered	4.45	— 4.70
Carbon disulphide, tech 500 lbs. bulk .....	.08 1/4	— .09
Casein, C. P. ....	.45	— .49
Cerium Oxalate .....	.60	— .62
Chalk, prec. light, English .....	.04 1/2	— .04 1/2
Heavy .....	.03 1/4	— .05
Chloral Hydrate, U. S. P. crystals, bottles incl'd	—	— 1.43
100 lb. lots	—	— .04
Charcoal Willow, powdered .....	.06	— .07
Wood, powdered .....	.15	— .23
Chlorine, liquid .....	.63	— .65
Chloroform, drums, U.S.P. lb.	6.25	— 6.45
Chrysarobin, U. S. P.	—	— .51
Cinchonidin, Rik	—	— .35
Cinchonine, Alk., crystals ..oz.	—	— 1.45
Sulphate	2.50	— 2.70
Civet .....	.45	— .49
Cobalt, pow'd (Fly Poison) .....	.85	— .96
Oleate	—	— 10.00
Cocaine, Hydrochl. gran.	—	— 10.25
cryst., bulk .....	.32	— .33
Cocoa Butter, bulk .....	.37	— .39
Cases, fingers	—	— 9.15
Codeine, Alk., Bulk	—	— 8.20
Nitrate, Bulk	6.80	— 6.85
Phosphate, Bulk	7.30	— 7.35
Sulphate, Bulk .....	.45	— .46
Colloidal, U.S.P., 1-lb. cans lb.	.34	— .37
Colocynth, Trieste, whole .....	.48	— .49
Pulp, U. S. P. ....	.29	— .30
Spanish Apples	—	— 1.70
Copper Chloride, pure cryst. lb.	—	— 1.65
Oleate, mass, 1-oz. jars, 20 p.c.	—	—
Corrosive, Sublimite, see Mercury	—	—
Cotton Soluble .....	.78	— 1.00
Coumarin, refined	27.50	— 28.75
Cream of Tartar, cryst. U.S.P. lb.	—	— .62
Powdered, 99 p.c.	1.85	— 1.95
Cresote, U.S.P.	26.00	— 27.50
*Carbonate .....	.18	— .19
Creolol, U.S.P. ....	.41	— .42
Cuttlefish Bones, Trieste	1.25	— 1.30
Jewelers large	—	— 1.20
Small	—	—
*Nominal.	—	—

Cuttlefish Bone, French .....	.37	— .39
Dover's Powder, U.S.P.	2.90	— 3.00
Dragon's Blood, Mass. ....	.34	— .61
Reeds	4.70	— 4.80
Emetine, Alk., 15 gr. vials ..ea.	—	— 2.75
Hydrochloride, U.S.P. 15 gr. vials	—	— 1.85
Epsom Salts (see Mag. Sulph.)	—	—
Ergot, Russian .....	.89	— .95
Spanish .....	.89	— .95
Ether, U. S. P., 1900	—	— .27
Washed	—	— .32
U. S. P., 1880	—	— .35
Eucalyptol	1.34	— 1.40
Formaldehyde, Sol. ....	.19	— .20
Gelatin, silver	1.30	— 1.35
*Gold	—	—
Glycerin, C. P., bulk	—	— .64
Drums and bbls. added .....	.64	— .66 1/2
C.P. in cans .....	.66	— .66 1/2
Dynamite, drums included .....	.63	— .64
Saponification, loose .....	.49	— .49 1/2
Soap, Lye, loose .....	.44	— .44 1/2
Grains of Paradise	2.50	— 2.75
Guaiacal, liquid	19.90	— 21.75
Guarana	1.00	— 1.05
*Harlem Oil, bottles	7.45	— 8.00
Hexamethylenetetramine	1.05	— 1.15
Hops, N. Y., 1917 prime .....	.45	— .50
Pacific Coast, 1917, Prime lb.	.23	— .24
Hydrogen Peroxide, U.S.P., 10 gr. lots	—	—
4-oz. bottles	—	— 7.50
12-oz. bottles	—	— 16.50
16-oz. bottles	—	— 20.00
Hydroquinone	2.00	— 2.10
Ichthyol	—	—
Iodine, Resublimed	4.25	— 4.30
Iodoform, Powdered, bulk	—	— 5.00
Crystals	—	— 5.55
Iron Citrate, U.S.P.	—	— 1.00
Phosphate U.S.P.	—	— .99
Pyrophosphate, U.S.P.	—	— .99
Isinglass, American .....	.80	— .81
Russian	5 1/2	— 6.00
See Agar Agar	—	—
Kamala, U. S. P.	3.20	— 3.25
Kola Nuts, West Indies .....	.18	— .19
Lanolin, hydrous, cans U.S.P. lb.	.34	— .39
Anhydrous, cans .....	.44	— .49
Lead Iodide, U.S.P.	—	— 2.95
Licorice, Mass, Syrian .....	.29	— .30
*Sticks, bbls. Corigliano .....	.49	— .50
Lupulin, U. S. P.	2.50	— 3.00
Lycopodium, U. S. P.	1.70	— 1.90
Magnesium Carbonate, kegs lb.	—	— 4.55
Glycophosphate	1.65	— 1.70
Hypophosphite	—	— 4.85
Iodide	—	— 1.10
Oxide, tins light	—	— 2.15
Peroxide, cans	1.30	— 1.37
Salicylate	—	—
Sulphate, Epsom Salts, tech 100-lb.	3.37	— 3.45
U. S. P.	3.62	— 3.65
Manganese Glycophos	4.50	— 4.70
Hypophosphite	1.65	— 1.70
Iodide	—	— 4.85
Peroxide .....	.75	— .80
Sulphate, crystals .....	.60	— .67
Manna, large flake .....	.89	— .94
Small flake .....	.70	— .75
Menthol, Japanese	3.35	— 3.40
Mercury, flasks, 75 lbs. ....ea.	—	— 117.50
Bisulphate	—	— 1.50
Blue Mass	—	— .85
Powdered	—	— .85
Blue Ointment, 30 p. c.	—	— 1.18
50 p. c.	—	— 1.91
Calomel, American	—	— 1.76
Corrosive Sublimite, cryst. lb.	—	— 1.71
Powdered, Granular	—	— 4.10
Iodide, Green	—	— 4.10
Red	—	— 4.10
Yellow	—	— 2.10
Red Precipitate	—	— 2.20
Powdered	—	— 2.20
White Precipitate	—	— 2.25
Powdered	—	—
*Nominal.	—	—

Drugs & Chemicals, Heavy Chemicals and Dyestuffs in Original Packages

Methylene Blue, medicinal..lb.	15.00	-17.00
Milk, powdered ..lb.	.16	.19
Mirbane Oil, refined, drums lb.	.17 1/2	.19 1/4
Morphine, Acet. bulk ..oz.	—	11.80
Sulphate, bulk ..oz.	—	11.80
Diacetyl, Hydrochloride, 5-oz. cans ..oz.	—	15.90
Moss, Iceland ..lb.	—	.32
Irish ..lb.	—	.15
Musk, pods, Cab ..oz.	12.00	-12.25
Tonquin ..oz.	23.75	-24.75
Grain Cab ..oz.	18.50	-18.95
Tonquin ..oz.	33.40	-34.00
Druggists ..lb.	29.75	-30.00
Synthetic ..lb.	29.75	-30.00
Naphthalene, See Coal Tar Products.		
Nickel and Ammon. Sulphate lb.	.27	.29
Sulphate ..lb.	.13	.14
Nux Vomica, whole ..lb.	.13	.14
Powdered ..lb.	.17	.18
*Opium, cases, U. S. P. ..lb.	—	23.75
Granular ..lb.	—	26.00
Powdered, U.S.P. ..lb.	1.50	-1.55
Oxgall, pur. U.S.P. ..lb.	4.80	-5.00
Papain ..lb.	3.10	-3.60
Paraffin White Oil, U.S.P. gal.	.43	.44
Paris Green, kegs ..lb.	.06	.07
Petrolatum, light amber bbls. lb.	.09	.10
Cream White ..lb.	.10	.11
Lily White ..lb.	.13	.14
Snow White ..lb.	6.06	-6.25
Phenolphthalein ..lb.	1.70	-1.80
*Phosphorus, yellow ..lb.	16.00	-20.00
Red ..lb.	13.00	-18.00
Piperin ..lb.	.85	.95
Poppy Heads ..lb.	1.50	-1.55
Potassium acetate ..lb.	1.20	-1.40
Bicarb. ..lb.	.45	.60
Bisulphate ..lb.	.75	.85
C. P. ..lb.	1.35	-1.36
Bromide, (bulk, gran.) ..lb.	—	1.05
Chromate, crystals, yellow. tech. 1-lb. c. b. 10 ..lb.	—	1.60
Citrate, bulk ..lb.	—	1.45
Glycerophosphate, bulk ..oz.	2.15	-2.20
Hypophosphite, bulk ..lb.	—	3.75
Iodide, bulk ..lb.	—	.25
Lactophosphate ..oz.	3.50	-3.60
Permanganate, U.S.P. ..lb.	2.90	-2.95
Salicylate ..lb.	1.11	-1.16
Sulphate, C.P. ..lb.	1.31	-1.32
Tartrate, powdered ..lb.	—	1.40
Procaine, oz. bottles ..oz.	—	.75
Quinine, Sulph. 100 oz. tins ..oz.	—	.75
5-oz. tins ..oz.	—	.75 1/2
2-oz. tins ..oz.	—	.76
1-oz. tins ..oz.	—	.77
Second Hands ..oz.	—	.80
*Amsterdam ..oz.	1.25	-1.30
*German ..oz.	—	.80
*Java ..oz.	—	.40
Quindine crystals, 100 oz. Sulphate, tins ..oz.	8.50	-9.00
Resorcin crystals, U.S.P. ..lb.	—	.43 1/2
Rochelle salt, crystals, bxs. ..lb.	19.50	-20.25
Saccharin, U.S.P., soluble ..lb.	22.00	-23.00
U.S.P., Insoluble ..lb.	16.00	-17.00
Saltin, bulk ..lb.	—	.60
Salol, U.S.P., bulk ..lb.	—	.65
Sandalwood ..lb.	—	.38.00
Ground ..lb.	—	39.75
Santonin, cryst., U.S.P. ..lb.	—	.33 1/2
Powdered ..lb.	—	.34
Scammony, resin ..lb.	—	.34
Powdered ..lb.	—	.34
Seidlitz Mixture, 1 lbs. ..lb.	—	.34
Silver Nitrate 500-oz. lots ..oz.	—	.34
Soap, Castile, white, pure ..lb.	—	.17
Marseilles, white ..lb.	—	.17
Green, pure ..lb.	—	.14
Ordinary ..lb.	—	.15
Soap, Castile, Mottled, pure lb.	—	.12
Ordinary ..lb.	—	.25
Sodium, Acetate, U.S.P. gran. lb.	4.25	-4.75
Benzoate, gran. U.S.P. ..lb.	—	.63
Bicarb. U.S.P., powd. bbls. lb.	—	.66
Bromide, U.S.P., bulk ..lb.	—	.250
Caeodylate ..oz.	—	.350
Chlorate, U.S.P. 8th Rev. crystals, c. b. 10 ..lb.	—	.50
Granular c. b. 10 ..lb.	—	.52
Citrate, U.S.P. cryst. ..lb.	—	.67
Granular, U.S.P. ..lb.	—	.77
Glycerophosphate, crystals ..lb.	2.65	-2.70
Hypophosphite, U.S.P. ..lb.	1.10	-1.15
Iodide, bulk ..lb.	—	3.90
Phosphate, U.S.P., gran. ..lb.	—	.13

*Nominal.

WHERE TO BUY

Antoine Chiris Co.

NEW YORK
IMPORTERS & MANUFACTURERS
ESSENTIAL OILS
SYNTHETIC CHEMICALS

Fritzsche Brothers

New York

ESSENTIAL - OILS

Sodium Phosphate Recryst. ..lb.	.17	.18
Drier ..lb.	.25	.26
Salicylate, U.S.P. ..lb.	1.10	-1.20
Sulph. (Glauber's Salt) ..lb.	—	.12
Tungstate ..lb.	—	.27
Spermaceti, blocks ..lb.	—	.45
Spirit Ammonia, U. S. P. ..lb.	—	.47
Aromatic U. S. P. ..lb.	—	.48
Nitrous Ether, U. S. P. ..lb.	—	.49
Ether Comp. ..lb.	—	1.65
Storax, liquid cases ..lb.	3.60	-4.60
Strontium Bromide, bulk ..lb.	.75	.76
Iodide, bulk ..lb.	—	3.50
Nitrate ..lb.	—	.24
Salicylate, U.S.P. ..lb.	1.25	-1.30
Strychnine Alkld., cryst. ..oz.	—	1.55
Acetate ..oz.	—	1.55
Nitrate ..oz.	—	1.55
Sulphate, crystals, bulk ..oz.	—	1.20
Sugar of Milk, powdered ..lb.	.48	.49
Sulphonol, 100 oz. lots ..lb.	1.25	-1.50
Sulphonethylmethane, U.S.P. lb.	15.00	-16.00
Sulphonmethane, U.S.P. ..lb.	16.00	-16.75
Sulphur, bbls. ..100 lbs.	—	2.35
Flour com'l bags ..100 lbs.	—	2.25
Flowers ..100 lbs.	4.05	-4.25
Tartaric Acid, U.S.P. ..bbls.	—	.82 1/2
Granular and Powd. ..lb.	—	.83
Crystals ..lb.	—	.83
Tamarinds ..lb.	.07 1/2	.08 1/2
Kegs ..per keg	3.70	-3.80
Tartar Emetic, tech. ..lb.	.67	.67 1/2
U. S. P. ..lb.	.73	.73 1/2
Terpin Hydrate ..lb.	.54	.59
Thymol, crystals, U.S.P. ..lb.	14.50	-15.00
Iodide, U.S.P., bulk ..lb.	—	16.55
Tin, bichloride, bbls. ..lb.	—	.80
Oxide, 500 lb. bbls. ..lb.	—	.80
Toluol. See Coal Tar Crudes.		
Turpentine, Venice, True ..lb.	3.65	-3.75
Artificial ..lb.	.06	.07
Spirits, see Naval Stores.		
Vanillin ..oz.	.80	.84
Witch Hazel Ext., dble dist., bbl. ..gal.	1.18	-1.23
Zinc Carbonate ..lb.	.28	.29
Chloride ..lb.	.13	.16
Iodide, bulk ..lb.	—	4.00
Metallic, C. P. ..lb.	.45	.75
Oxide, U.S.P., bbls. ..lb.	.34	.36

Acids

Acetic, 56 p.c. ..lb.	.27 1/4	.28
*Glacial, 99 p.c. carboys ..lb.	.43	.44
Acetyl-salicylic ..lb.	2.50	-2.75
*Benzoic, from gum ..lb.	—	.425
ex toluol ..lb.	4.25	-4.50
Boric, cryst., bbls. ..lb.	1.34 1/2	.15
Powdered, bbls. ..lb.	1.34 1/2	.15
Butyric, Tech., 60 p.c. ..lb.	1.45	-1.55
Camphoric ..lb.	4.85	-5.00
*Carbolic, crys., U.S.P., drs. lb.	.54	.55
1-lb. bottles ..lb.	.62	.63
5-lb. bottles ..lb.	.60	.61
50 to 100-lb tins ..lb.	.57	.59
Chromic, U.S.P. ..lb.	1.25	-1.50

*Nominal.

Chrysophanic ..lb.	6.20	-6.35
Citric, crystals, bbls. ..lb.	.82	.82 1/2
Powdered ..lb.	.82 1/2	.83
Second hands ..lb.	.92	.92 1/2
Cresylic, 95-100 p.c. ..gal.	1.10	-1.15
*Formic, 75 p.c., tech ..lb.	1.15	-1.50
Gallic, U.S.P., bulk ..lb.	1.55	-1.60
Glycerophosphoric ..lb.	3.45	-5.00
Hydroiodic, sp. g. 1.150 ..oz.	.25	.30
Hydrobromic, Conc. ..lb.	2.40	-2.45
Hydrocyanic, 2 p.c. U.S.P. ..lb.	.18	.20
Hypophosphorous, 50 p.c. ..lb.	—	2.50
U. S. P. 10 p.c. ..lb.	.65	.70
Lactic, U.S.P. VIII ..lb.	2.50	-2.25
U. S. P. IX ..lb.	2.50	-2.60
Molybdiic, C.P. ..lb.	6.90	-7.40
Muriatic, 20 deg. carboys ..lb.	.02 1/2	.03
Nitric, 42 deg. carboys ..lb.	.09 1/2	.09 1/4
Nitro Muriatic ..lb.	.20	.23
Oleic, purified ..lb.	.23	.28
Oxalic, cryst., bbls. ..lb.	.46	.50
*Picric, kegs ..lb.	.90	-1.25
Phosphoric, U. S. P. ..lb.	.45	.50
Pyrogallic, resublimed ..lb.	3.05	-3.15
Crystals, bottles ..lb.	2.70	-2.85
Pyroigneous, purified ..lb.	—	.06
Technical ..gal.	.12	-1.24
Salicylic, bulk, U.S.P. ..lb.	.85	.90
Stearic, triple pressed ..lb.	.27	.28
Sulphuric, C.P. ..lb.	.07	.08
Sulphurous ..lb.	.05	.06
Tannic, U.S.P., bulk ..lb.	1.35	-1.40
Tartaric Crystals, U.S.P. ..lb.	.83	.84
Powdered, U.S.P. ..lb.	.82	.83

Essential Oils

Almond, bitter ..lb.	13.00	-13.25
Artificial, chlorine traces ..lb.	4.25	-4.50
Free from chlorine ..lb.	5.00	-5.25
Amber, crude ..lb.	1.30	-1.50
Rectified ..lb.	1.75	-1.85
Anise ..lb.	1.10	-1.15
Bay ..lb.	2.40	-2.50
Bergamot ..lb.	5.50	-5.75
Synthetic ..lb.	4.50	-4.75
Bois de Rose ..lb.	4.50	-4.75
Cade ..lb.	1.00	-1.10
Cajuput, bottle, Native, ca. ..lb.	.75	.80
Camphor, heavy gravity ..lb.	.12	.18
Japanese, white ..lb.	.20	.21
Caraway ..lb.	8.00	-8.25
Cassia, 75-80 p.c. tech. ..lb.	2.20	-2.40
Lead Free ..lb.	2.40	-2.60
Redistilled, U.S.P. ..lb.	2.70	-2.80
Cedar Leaf ..lb.	1.10	-1.25
Cedar Wood ..lb.	.19	.20
*Cinnamon, Ceylon, heavy ..lb.	20.00	-21.00
Citronella, Ceylon, drums ..lb.	.50	.51
Java ..lb.	.75	.77
Cloves, cans ..lb.	3.25	-3.35
Bottles ..lb.	3.35	-3.40
Copaiba ..lb.	.95	1.05
Coriander ..lb.	22.00	-23.00
Cubebs ..lb.	7.00	-7.25
Cumin ..lb.	9.00	-10.00
Erigeron ..lb.	2.10	-2.25
Eucalyptus, Australian ..lb.	.60	.65
Fennel, sweet ..lb.	3.75	-4.00
Geranium, rose, African ..lb.	6.75	-7.00
Bourbon ..lb.	6.30	-6.65
Turkish ..lb.	4.25	-4.50
Ginger ..lb.	8.00	-8.25
Gingergrass ..lb.	1.20	-1.35
Hemlock ..lb.	12.00	-12.25
Juniper Berries, rect. ..lb.	13.00	-13.25
Twice rect. ..lb.	2.00	-2.25
Wood ..lb.	5.25	-5.50
Lavender Flowers ..lb.	.65	.85
Garden ..lb.	.90	1.45
Spike ..lb.	1.05	-1.20
Lemon, U.S.P. ..lb.	1.50	-1.55
Lemongrass ..lb.	1.50	-1.55
Limes, Expressed ..lb.	2.00	-2.10
Distilled ..lb.	2.95	-3.10
Linaloe ..lb.	2.30	-2.40
Mace, distilled ..lb.	32.00	-33.00
Mustard, natural ..lb.	20.00	-21.00
Artificial ..lb.	70.00	-80.00
Neroli, bigarade ..lb.	80.00	-90.00
Petale ..lb.	18.50	-20.00
Artificial ..lb.	2.25	-2.35
Orange, bitter ..lb.	1.85	-1.95
Sweet, West Indian ..lb.	1.80	-1.90
Italian ..lb.	2.50	-2.75
*Orris Concrete ..oz.	5.00	-5.25
Origanum, Imitation ..lb.	.25	.35
Patchouli ..lb.	28.00	-30.00
Pennyroyal ..lb.	1.65	-1.80
Imported ..lb.	1.25	-1.40

*Nominal.

Drugs & Chemicals, Heavy Chemicals and Dyestuffs in Original Packages

Peppermint, tins	lb.	3.00	— 3.15
Petit Grain, So. America	lb.	3.50	— 3.60
French	lb.	7.00	— 8.00
Pinus Sylvestris	lb.	2.25	— 2.40
Pumilio	lb.	—	5.00
Rose, natural	oz.	26.00	— 28.00
Synthetic	oz.	3.00	— 4.00
Rosemary, French	lb.	.85	— .90
Saffrol	lb.	.41	— .45
Sandalwood, East India	lb.	13.00	— 13.25
Sassafras, natural	lb.	2.00	— 2.10
Artificial	lb.	.33	— .35
*Savin	lb.	6.00	— 6.50
*Spruce	lb.	1.20	— 1.25
Spearmint	lb.	3.60	— 3.75
Tansy	lb.	3.50	— 3.75
Thyme, red, French	lb.	1.75	— 1.80
White, French	lb.	2.00	— 2.15
*Wine, Ethereal, light	lb.	—	—
Wintergreen, leaves, true	lb.	4.30	— 4.35
Birch, Sweet	lb.	2.30	— 2.50
Synthetic, U.S.P. bulk	lb.	.85	— .90
Wormseed	lb.	9.50	— 9.65
Wormwood	lb.	4.50	— 4.75
Ylang Ylang, Bourbon	lb.	12.50	— 15.00
Manila	lb.	26.00	— 28.00
Artificial	lb.	—	— 24.00

OLBORESINS

Aspidium (Malefern)	lb.	17.50	— 18.00
Capsicum, 1-lb. bottles	lb.	4.50	— 5.50
Cubeb	lb.	6.50	— 7.00
Ginger	lb.	3.50	— 4.50
*Parsley Fruit (Petroselinum)	lb.	6.75	— 7.50
Pepper, black	lb.	10.50	— 11.75
Mullein (so-called)	lb.	5.00	— 5.50
Orris, domestic	lb.	4.00	— 5.00
Imported	lb.	—	— 16.00

Crude Drugs

Copaiba, Para	lb.	.65	— .70
South American	lb.	.90	— .95
Fir, Canada	gal.	5.80	— 6.20
Oregon	gal.	1.60	— 1.75
Peru	lb.	3.75	— 3.80
Tolu	lb.	1.15	— 1.20

BARKS

Angostura	lb.	.40	— .45
Basswood Bark, pressed	lb.	.17	— .20
Blackhaw, of root	lb.	.28	— .30
of Tree	lb.	.14	— .16
Buckthorn	lb.	.24	— .25
Calisaya	lb.	.95	— 1.00
Cascara Sagrada	lb.	.14	— .17
Cascarilla, quills	lb.	.22	— .24
Siftings	lb.	.18	— .14
Chestnut	lb.	.08	— .09
Cinchona, red quills	lb.	1.10	— 1.45
Broken	lb.	—	— .85
Yellow "quills"	lb.	.95	— 1.00
*Broken	lb.	—	—
*Loxa, pale, bs.	lb.	.30	— .31
*Powdered, boxes	lb.	.31	— .33
*Marsacibo, yellow, powd.	lb.	.35	— .40
Condurango	lb.	.13	— .15
Cotton Root	lb.	.10	— .12
Cramp (true)	lb.	.55	— .60
Cramp (so-called)	lb.	.10	— .13
Dogwood, Jamaica	lb.	.07	— .08
Elm, grinding	lb.	.08	— .09
Select bds.	lb.	.17	— .20
Ordinary	lb.	.10	— .11
Hemlock	lb.	.06	— .07
Lemon Peel	lb.	.10	— .12
Mezereon	lb.	.20	— .26
Oak, red	lb.	.08	— .09
White	lb.	.04	— .05
Orange Peel, bitter	lb.	.05	— .07
Sweet	lb.	.11	— .12
Trieste	lb.	.12	— .13
Prickly Ash, Southern	lb.	.12	— .12
Northern	lb.	.15	— .16
Pomegranate of Root	lb.	.40	— .42
of Fruit	lb.	.30	— .32
*Quebracho	lb.	—	—
Sassafras, ordinary	lb.	.11	— .12
Select	lb.	.17	— .19
Simaruba	lb.	.50	— .60
Soap, whole	lb.	.10	— .11
Cut	lb.	.16	— .16
Crushed	lb.	.12	— .13
Wahoo, of Root	lb.	.44	— .46
of Tree	lb.	.15	— .16
Willow, Black	lb.	.07	— .09
White	lb.	.14	— .14
White Pine	lb.	.07	— .08
White Poplar	lb.	.03	— .04
Wild Cherry	lb.	.10	— .13
Witch Hazel	lb.	.05	— .06

*Nominal.

WHERE TO BUY

H. R. Lathrop & Co., Inc.

116 Beekman St. New York

BOTANICAL DRUGS

BEANS

Calabar	lb.	.44	— .46
St. Ignatius	lb.	.24	— .26
St. John's Bread	lb.	.30	— .32
Tonka, Angostura	lb.	.90	— .98
Fara	lb.	.64	— .69
Surinam	lb.	.70	— .74
Vanilla, Mexican, whole	lb.	4.50	— 6.00
Cuts	lb.	3.15	— 3.50
Bourbon	lb.	2.25	— 2.75
South American	lb.	3.00	— 4.00
Tahiti, White Label	lb.	1.40	— 1.45
Green label	lb.	1.25	— 1.30

BERRIES

Cubeb, ordinary	lb.	1.10	— 1.15
*XX	lb.	1.20	— 1.22
Powdered	lb.	1.15	— 1.25
Fish	lb.	.15	— .16
Horse, Nettle, dry	lb.	1.20	— 1.25
Juniper	lb.	.06	— .07
Laurel	lb.	.08	— .08
Poke	lb.	.11	— .12
Prickly Ash	lb.	.11	— .12
Saw Palmetto	lb.	.18	— .20
Sloe	lb.	.50	— .55
Sumac	lb.	.05	— .06

FLOWERS

Arnica	lb.	1.10	— 1.20
Powdered	lb.	1.30	— 1.35
Borage	lb.	.60	— .65
Calendula	lb.	4.00	— 4.50
Chamomile, German	lb.	—	—
Hungarian	lb.	.50	— .55
Roman	lb.	1.00	— 1.10
Spanish	lb.	.40	— .50
Clover Tops	lb.	.30	— .31
Elder	lb.	.28	— .30
Insect, open	lb.	.30	— .35
Closed	lb.	.39	— .40
*Powd. Flowers and stems	lb.	.34	— .37
*Powd. Flowers	lb.	.45	— .50
*Kousso	lb.	—	—
Lavender, ordinary	lb.	.22	— .23
Select	lb.	.32	— .35
Linden, with leaves	lb.	.34	— .36
Without leaves	lb.	.48	— .50
Malva, blue	lb.	3.00	— 4.00
Black	lb.	.53	— .60
*Mullein	lb.	1.66	— 1.75
Orange	lb.	1.20	— 1.24
Ox-Eye, Daisy	lb.	.05	— .05
Poppy, red	lb.	1.00	— 1.20
Rosemary	lb.	.65	— .75
Saffron, American	lb.	.45	— .47
Valencia	lb.	14.75	— 15.00
Tilia (see Linden)	lb.	—	—

GUMS

Aloes, Barbados	lb.	1.00	— 1.10
Cape	lb.	.15	— .17
Curacao, cases	lb.	.10	— .11
Socotrine, powd.	lb.	.60	— .65
Ammoniac, tears	lb.	.80	— .85
Powdered	lb.	.85	— .90
Arabic, firsts	lb.	.50	— .52
*Seconds	lb.	—	—
Sorts Amber	lb.	—	— .30
Powdered	lb.	.35	— .40
Asafoetida, whole, U.S.P.	lb.	1.75	— 1.80
Powdered, U.S.P.	lb.	1.85	— 1.95
Benzoins, Siam	lb.	1.50	— 1.75
Sumatra	lb.	.33	— .35
Catechu	lb.	.19	— .22
*Chicle, Mexican	lb.	.80	— .85
Damar Batavia, No. 1	lb.	.26	— .27
Euphorbium	lb.	.23	— .24
Powdered	lb.	.27	— .28
Galbanum	lb.	1.45	— 1.50
Gamboge	lb.	1.90	— 2.00
Guaiac	lb.	.80	— .82
Hemlock	lb.	.80	— .90
Kauri No. 1	lb.	.46	— .50
Kino	lb.	—	— .75
Mastic	lb.	.75	— .80
Myrrh, select	lb.	.55	— .60
Sorts	lb.	.45	— .50
Siftings	lb.	.40	— .45

*Nominal.

Olibanum, siftings	lb.	.13	— .14
Tears	lb.	.16	— .22
Sandarac	lb.	.70	— .75
*Senegal, picked	lb.	.36	— .42
Sorts	lb.	—	—
Thus, per bbl.	280-lb.	13.00	— 13.50
Spruce	lb.	.65	— .75
Tragacanth, Aleppo firsts	lb.	2.30	— 2.40
Seconds	lb.	1.75	— 2.00
Thirds	lb.	1.40	— 1.70
*Turkey, firsts	lb.	—	— 2.80
*Seconds	lb.	2.20	— 2.25
*Thirds	lb.	1.95	— 2.00

LEAVES AND HERBS

Aconite	lb.	.35	— .38
Balmory	lb.	.09	— .10
Bay, true	lb.	—	—
Belladonna	lb.	1.65	— 1.70
Boneseet, leaves and tops	lb.	.15	— .18
Buchu, short	lb.	1.35	— 1.40
Long	lb.	1.40	— 1.45
Cannabis, true, imported	lb.	3.40	— 3.50
American	lb.	.50	— 1.00
Catnip	lb.	.08	— .10
Chestnut	lb.	.04	— .05
Chiretta	lb.	.41	— .42
*Coca, Huanuco	lb.	—	—
*Truxillo	lb.	—	—
Coldfoot	lb.	.18	— .20
*Conium	lb.	—	—
Corn Silk	lb.	.10	— .12
Damiana	lb.	.16	— .18
Deer Tongue	lb.	.24	— .25
Digitalis, Domestic	lb.	.45	— .50
Imported	lb.	.55	— .70
Eucalyptus	lb.	.07	— .09
Euphorbia Pilulifera	lb.	.19	— .20
Grindelia Robusta	lb.	.08	— .10
*Hennane, German	lb.	1.90	— 2.10
Russian	lb.	2.00	— 2.10
Domestic	lb.	—	—
Henna	lb.	.38	— .40
Horehound	lb.	.22	— .23
Jaborandi	lb.	.29	— .30
Laurel	lb.	.12	— .13
Life Everlasting	lb.	.08	— .09
Liverwort	lb.	.35	— .37
Lobelia	lb.	.09	— .10
Matico	lb.	.30	— .32
*Marjoram, German	lb.	—	—
*French	lb.	.73	— .80
Patchouli	lb.	.12	— .18
Pennyroyal	lb.	.12	— .18
Peppermint, American	lb.	.27	— .29
Pichi	lb.	.09	— .10
*Prince's Pine	lb.	.47	— .50
Plantain	lb.	.12	— .14
*Pulsatilla	lb.	6.50	— 6.75
Queen of the Meadow	lb.	.07	— .10
Rose, red	lb.	1.25	— 1.30
Rosemary	lb.	.13	— .14
Rue	lb.	—	— .55
*Sage, Austrian, stemless	lb.	—	—
*Grinding	lb.	—	—
Greek, stemless	lb.	.29	— .30
Spanish	lb.	.20	— .21
Savory	lb.	.19	— .19
Senna, Alexandria, whole	lb.	1.10	— 1.20
Half Leaf	lb.	.80	— .90
Siftings	lb.	.40	— .43
Powdered	lb.	.40	— .43
Timevelly	lb.	.16	— .22
Pods	lb.	.17	— .19
Skullcap, Western	lb.	.15	— .17
Spearmint, American	lb.	.20	— .21
Squaw Vine	lb.	.28	— .31
Stramonium	lb.	.20	— .22
Tansy	lb.	.09	— .11
Thyme Spanish	lb.	.09	— .09
French	lb.	.12	— .12
Uva Ursi	lb.	.20	— .25
Witch Hazel	lb.	.08	— .08
Wormwood imported	lb.	.24	— .27
Yerba Santa	lb.	.08	— .09

ROOTS

Aconite, English	lb.	.45	— .46
Powdered	lb.	.70	— .74
German	lb.	.69	— .75
*Powdered	lb.	.74	— .80
Alkanet	lb.	1.80	— 1.85
Althaea, cut	lb.	.65	— .80
Whole	lb.	.33	— .37
Angelica, American	lb.	.55	— .60
*German	lb.	—	—
Arnica	lb.	.80	— 1.00
Arrowroot, American	lb.	.15	— .16
Bermuda	lb.	.52	— .53
St. Vincent	lb.	.28	— .35
Bamboo Brier	lb.	.06	— .07
Bearsfoot	lb.	.08	— .09

*Nominal.

Drugs & Chemicals, Heavy Chemicals and Dyestuffs in Original Packages

Belladonna.....lb.	3.50	— 3.75
Powdered.....lb.	3.55	— 3.80
Berberis, Aquifolium.....lb.	.19	— .21
Bitter.....lb.	.16	— .18
Beth.....lb.	.16	— .20
Blood.....lb.	.17	— .18
Blueflag.....lb.	.27	— .30
Bryonia.....lb.	.27	— .30
Burdock, Imported.....lb.	.19	— .24
American.....lb.	.16	— .19
Calamus, bleached.....lb.	1.50	— 3.00
Unbleached, natural.....lb.	.24	— .26
Cashew, black.....lb.	.11	— .13
Blue.....lb.	.40	— .12
Colchicum.....lb.	2.35	— 2.75
Colombo, whole.....lb.	.21	— .25
Comfrey.....lb.	.20	— .24
Culver's.....lb.	.15	— .16
Cranebill see Geranium.....lb.		
Dandelion, English.....lb.	.35	— .40
American.....lb.	.32	— .34
Doggrass Dom-Rock Co.....lb.	.55	— .75
Cut Bermuda.....lb.	.28	— .32
Echinacea.....lb.	.30	— .32
Elecampene.....lb.	.09	— .10
Galangal.....lb.	.24	— .26
Gelsemium.....lb.	.08	— .10
Gentian.....lb.	.18	— .20
Powdered.....lb.	.20	— .22
Geranium.....lb.	.09	— .10
Ginger, Jamaica, unbleached lb.	1.50	— 2.10
Bleached.....lb.	.25	— .26
Ginseng, Cultivated.....lb.	3.00	— 5.00
Wild, Eastern.....lb.	10.00	— 12.00
Northwestern.....lb.	15.00	— 18.00
Southern.....lb.	12.00	— 15.00
Golden Seal.....lb.	5.55	— 5.50
Powdered.....lb.	5.75	— 6.00
Hellebore, Black.....lb.	1.25	— 1.40
White, Domestic.....lb.	.24	— .26
Powdered.....lb.	.26	— .29
*Imported.....lb.	.40	— .44
Ipecac, Cartagena.....lb.	3.10	— 3.20
Powdered.....lb.	3.40	— 3.50
Rio.....lb.	3.10	— 3.25
Jalap, whole.....lb.	.60	— .65
Powdered.....lb.	.70	— .75
Kava Kava.....lb.	1.75	— 1.90
*Lady Slipper.....lb.	.80	— .90
Licorice, Russian, cut.....lb.	.80	— .90
Spanish natural, bales.....lb.	.33	— .35
Selected.....lb.	.35	— .38
Powdered.....lb.	.35	— .37
Loraz, American.....lb.	.70	— .75
Manaca.....lb.	.25	— .27
Mandrake.....lb.	.08	— .09
Musk, Russian.....lb.	2.25	— 2.40
Orris, Florentine, bold.....lb.	.26	— .27
Verona.....lb.	.20	— .21
Finger.....lb.	1.95	— 2.10
Pareira Brava.....lb.	.35	— .40
Pellitory.....lb.	.29	— .31
Pink, true.....lb.	.42	— .43
Pleasant.....lb.	.17	— .19
Poke.....lb.	.06	— .07
Rhatany.....lb.	.13	— .15
Rhubarb Shensi.....lb.	.80	— .85
Chips.....lb.	.52	— .55
Cuts.....lb.	.60	— 2.00
High Dried.....lb.	.50	— .55
Sarsaparilla, Honduras.....lb.	.74	— .78
American.....lb.	.35	— .40
Mexican.....lb.	.58	— .65
Senega, Northern.....lb.	.95	— 1.00
Southern.....lb.	.90	— .95
Serpentaria.....lb.	.45	— .50
Skunk Cabbage.....lb.	.17	— .20
Snake, Black.....lb.	.34	— .35
Canada natural.....lb.	.34	— .38
Stripped.....lb.	.45	— .50
Spikenard.....lb.	.18	— .28
Squill, white.....lb.	.13	— .14
Stillingia.....lb.	.11	— .14
Stone.....lb.	.06	— .07
Turneria, Aleppy.....lb.	.07	— .08
China.....lb.	.09	— .09
Madras.....lb.	.11	— .11
Unicorn false (helonias).....lb.	.33	— .35
True (Aletris).....lb.	.38	— .40
Valerian, Belgian.....lb.	1.20	— 1.30
*English.....lb.		
German.....lb.		
Japanese.....lb.	1.15	— 1.20
Yellow Dock.....lb.	.11	— .14
Domestic.....lb.		
Yellow Parilla.....lb.	.09	— .11

SEEDS

*Anise, Levant.....lb.		
Spanish.....lb.	.25	— .26
Star.....lb.	.28	— .29
Caraway, African.....lb.	.53	— .54
*Dutch.....lb.		
Cardamoms, good bleached.....lb.	.80	— .90
Celery.....lb.	.39	— .39
*Nominal.....lb.		

Colchicum.....lb.	3.70	— 3.80
Conium.....lb.	.39	— .40
Coriander, Bombay.....lb.	1.45	— 1.45
Morocco.....lb.	1.55	— 1.55
Mogador, unbleached.....lb.	1.55	— 1.55
Cumin, Levant.....lb.		
Morocco.....lb.	1.55	— 1.6
Dill.....lb.	.21	— .21
Fennel, French.....lb.	.17	— .17
*German, small.....lb.		
*Roumanian, small.....lb.		
Flax, whole.....per bbl.	18.50	— 19.00
Ground.....lb.	.08	— .09
Foenugreek.....lb.	1.45	— 1.55
Hemp, Manchurian.....lb.	.06	— .06
*Russian.....lb.		
Job's Tears, white.....lb.	.06	— .07
Larkspur.....lb.	.26	— .30
Lobelia.....lb.	.22	— .24
Mustard, Bari, Brown.....lb.		
Bombay, Brown.....lb.	1.55	— 1.55
California, brown.....lb.	.18	— .18
Chinese.....lb.	.26	— .27
English, yellow.....lb.	.24	— .25
Parsley.....lb.	.24	— .25
Poppy, Dutch.....lb.		
Russian, blue.....lb.	.80	— .82
Indian.....lb.	.40	— .41
Rape, English.....lb.		
Japanese small.....lb.	.09	— .10
Domestic.....lb.	.10	— .10
Sabadilla.....lb.	1.35	— 1.4
*Strophanthus, Hispania.....lb.	1.65	— 1.65
Kombe.....lb.	1.85	— 1.95
Sunflower, domestic.....lb.	.07	— .07
South American.....lb.	.07	— .07
Worm, American.....lb.	.06	— .07
Levant.....lb.	.70	— .78

SPICES

Cassia, Batavia, No. 1.....lb.	.34	— .35
China, Selected, bales.....lb.	.19	— .20
Saigon genuine.....lb.	.58	— .59
Capsicum, African.....lb.	.22	— .23
Japan.....lb.	.15	— .16
Cassia Buds.....lb.	.34	— .36
Chilies, Japan.....lb.	.18	— .19
Mombasa.....lb.	.30	— .31
Cinnamon, Ceylon.....lb.	.28	— .32
Cloves, Amboy.....lb.	.57	— .58
Zanzibar.....lb.	.46	— .47
Ginger, African.....lb.	.14	— .14
Cochin "D".....lb.	.19	— .20
Jamaica, white.....lb.	.20	— .21
Japan.....lb.	.13	— .13
Mace, Banda, No. 1.....lb.	.54	— .55
Batavia, No. 2.....lb.	.47	— .48
Nutmegs 110s.....lb.	.33	— .34
Pepper, black, Sing.....lb.	.27	— .27
White.....lb.	.32	— .33
Pimento.....lb.	.08	— .08

WAXES

Bees, white.....lb.	.65	— .67
Yellow, crude.....lb.	.42	— .44
Yellow, refined.....lb.	.46	— .48
*Candelilla.....lb.	.60	— .65
*Carnauba, Flor.....lb.	.90	— .92
No. 1.....lb.	.90	— .92
No. 2.....lb.	.85	— .87
Ceresin, Yellow.....lb.	.21	— .23
White.....lb.	.22	— .25
Japan.....lb.	.20	— .21
*Montan, crude.....lb.	.28	— .38
Ozokerite, crude, brown.....lb.	.65	— .75
Green.....lb.	.85	— .95
*Refined, white.....lb.	.80	— .85
*Domestic.....lb.	.88	— .90
Refined, yellow.....lb.	.70	— .80
Paraffin, ref'd 120 deg. m.p.....lb.	1.25	— 1.3
Foreign, 130 deg. m.p.....lb.	.14	— .14
Stearic Acid.....lb.	.22	— .23
Single pressed.....lb.	.24	— .25
Double pressed.....lb.	.24	— .25
Triple pressed.....lb.	.28	— .29

Heavy Chemicals

Acetic acid, 28 p. c.....lb.	1.55	— 1.6
56 p. c.....lb.	.27	— .28
90 p. c.....lb.		
*Glaucal.....lb.	.43	— .44
Alum, ammonia, lump.....lb.	.04	— .04
Ground.....lb.	.09	— .09
Powdered.....lb.	.04	— .04
Chrome.....lb.	.20	— .21
Potash lump.....lb.	.08	— .09
Ground.....lb.	.09	— .09
Alum, Potash, Powdered.....lb.	.08	— .09
Soda, Ground.....lb.		
*Nominal.....lb.		

Aluminum chloride, liq.....lb.	.04	— .05
Sulph., high grade.....lb.	.03	— .04
Low grade.....lb.	.02	— .02
Ammonia, Anhydrous.....lb.		
Ammonia Water, 26 deg., car lb.	.06	— .07
20 deg., carboys.....lb.	.05	— .05
18 deg., carboys.....lb.	.04	— .05
16 deg., carboys.....lb.		
Ammonium chloride, U.S.P.....lb.	.19	— .21
Sal Ammoniac, gray.....lb.	.17	— .18
Granulated, white.....lb.	.17	— .17
Lump.....lb.	.17	— .20
Sulphate, foreign.....lb.		
Domestic.....lb.	.03	— .04
Antimony Salts, 75 p. c.....lb.		
65 p. c.....lb.		
47 p. c.....lb.		
Barium Fixe, dry.....lb.	.04	— .04
Barium, chloride.....ton	66.00	— 86.00
Dioxide.....lb.	.28	— .30
Nitrate.....lb.	.11	— .12
Barytes, floated, white.....ton	30.00	— 35.00
Off color.....ton	14.00	— 18.00
Bleaching Powder, 35 p. c.....lb.	.02	— .02
*Calcium Acetate.....100 lbs.	6.00	— 6.05
Carbide.....ton	70.00	— 73.00
Carbonate.....lb.		
Chloride, solid, f.o.b. N.Y. ton	24.00	— 26.00
Granulated, f.o.b. N.Y. ton		
Solid, second hands.....ton	30.00	— 34.00
Gran. second hands.....ton	40.00	— 45.00
Sulphate, 98-99 p. c.....lb.	.09	— .09
Carbon tetrachloride.....lb.	1.55	— 1.6
Copper Carbonate.....lb.	.33	— .35
Subacetate (Verdigris).....lb.	.40	— .42
Powdered.....lb.	.40	— .42
Sulphate, 98-99 p. c.....lb.	.09	— .09
Second hands.....lb.	.08	— .09
Powdered.....lb.	.10	— .11
Copperas, f.o.b. works.....100 lbs.	1.25	— 1.50
Fusel Oil, crude.....gal.	2.65	— 2.75
Refined.....gal.	3.75	— 4.00
Hydrofluoric, 30 p. c. in bbls. lb.		
48 p. c. in carboys.....lb.		
52 p. c. in carboys.....lb.		
Lead, Acetate, brown sugar.....lb.	1.55	— 1.6
White cryst.....lb.	.17	— .17
Broken Cakes.....lb.	.16	— .16
Granulated.....lb.	.17	— .17
Arsenate, powdered.....lb.	.31	— .34
Paste.....lb.	.15	— .17
*Nitrate.....lb.	Nominal	
Oxide, Litharge, Amer. pd. lb.	.09	— .09
Red, American.....lb.		
Foreign.....lb.		
White, Basic Carb., Amer.....lb.		
in Oil, 100 lbs. or over.....lb.		
in Oil.....lb.		
Basic Sulphate.....lb.		
Magnesite, f.o.b. Cal.....lb.	42.00	— 44.00
f. o. b. N. Y.....lb.	65.00	— 70.00
Muriatic acid.....lb.		
18 deg. carboys.....lb.	.01	— .02
20 deg. carboys.....lb.	.02	— .03
22 deg. carboys.....lb.	.02	— .03
Nitric acid, 36 deg. carboys lb.	.07	— .07
38 deg. carboys.....lb.	.08	— .09
40 deg. carboys.....lb.	.08	— .09
42 deg. carboys.....lb.	.09	— .09
Aqua Fortis, 36 deg. carb. lb.		
38 deg. carboys.....lb.		
40 deg. carboys.....lb.		
42 deg. carboys.....lb.		
Plaster of Paris.....bbl.	1.50	— 1.76
True Dental.....bbl.	1.75	— 2.00
Potash Caustic, 88-92.....lb.	.82	— .83
Potassium Bichromate.....lb.	.44	— .44
Carbonate, calc.....lb.	.68	— .75
Chlorate, cryst.....lb.	.39	— .40
Powdered.....lb.	.36	— .40
Muriate, basis 80 p. c. per ton	350.00	— 375.00
Prussiate, red.....lb.	2.85	— 2.95
Yellow.....lb.	1.18	— 1.25
Saltpetre, Granulated.....lb.	.27	— .28
Refined.....lb.	.31	— .31
Soda Ash 58 p. c. in bags 100 lbs.	2.40	— 2.50
In bbls.....100 lbs.	2.80	— 3.00
Caustic, 76 p. c. Solid.....100 lbs.	4.50	— 4.75
Powd. or gran.....100 lbs.	6.20	— 6.50
Sodium Bichromate.....lb.	.25	— .26
Bisulphate.....lb.		
Carbonate, Sal. Soda, Am. 100 lb.	1.25	— 1.40
Chlorate.....lb.	.18	— .20
Cyanide.....lb.	.38	— .40
Hyposulphite, bbls.....100 lbs.	2.50	— 2.75
Kegs.....100 lbs.	2.30	— 2.50
*Nitrate, tech.....100 lbs.	.60	— .575
Sodium Nitrite.....lb.	.06	— .07
Prussiate, Yellow.....lb.	.41	— .43
*Nominal.....lb.		

Drugs & Chemicals, Heavy Chemicals and Dyestuffs in Original Packages

Silicate, 60 p.c.	100 lbs.	4.25	— 5.00
Silicate, 40 p.c.	100 lbs.	2.25	— 2.75
Sulph., Glauber's salt 100 lbs.	1.40	— 1.70	
Sulphide 60-62 p.c. cryst.	lb.	.06	— .06½
60 p.c.	per 100 lbs.	4.25	— 4.50
Sulphur (crude) f.o.b. N.Y.	ton 45.00	— 50.00	
f. o. b. Baltimore	ton 45.00	— 50.00	
Sulphuric Acid			
60 deg. Pyrite	ton 45.00	— 50.00	
66 deg. Brimstone	ton 35.00	— 40.00	
Oleum	ton 60.00	— 65.00	
Battery Acid car's per 100 lbs.	3.00	— 3.40	

Dyestuffs, Tanning Materials and Accessories

COAL-TAR CRUDE AND INTERMEDIATES

Acid Benzoic	lb.	4.15	— 4.30
*Acid Benzoic Crude.	lb.	Nominal	
Acid H.	lb.	2.30	— 2.40
Acid Metanilic	lb.	—	—
Acid Naphthionic, Crude.	lb.	1.10	— 1.20
Refined	lb.	1.35	— 1.45
Acid Sulphanilic, crude.	lb.	.30	— .32
Refined	lb.	.42	— .44
p-Amidophenol Base	lb.	3.75	— 4.00
p-Amidophenol Hydrochloride lb.	4.10	— 4.25	
Aminoazobenzene	lb.	1.75	— 1.85
Aniline Oil, drums extra.	lb.	.25¾	— .26¾
Aniline Salts	lb.	.31	— .32
Aniline for red	lb.	1.15	— 1.20
*Anthracene (80 p.c.)	lb.	Nominal	
Anthraquinone	lb.	3.75	— 5.10
Benzaldehyde	lb.	5.10	— 5.75
Benidine Base	lb.	1.75	— 1.85
Benidine Hydrochloride	lb.	1.40	— 1.50
Benzate of Soda	lb.	3.90	— 4.10
Benzol, C. P.	gal.	.30	— .31½
Benzol (90 p.c.)	gal.	.31¾	— .32¾
Benzylchloride	lb.	2.25	— 2.50
Diamedophenol	lb.	6.50	— 7.00
o-Dianisidine	lb.	—	—
Dichlorobenzol	lb.	.35	— .40
o-Dichlorobenzol	lb.	.15	— .16
p-Dichlorobenzol	lb.	.13	— .14
Diethylaniline	lb.	4.50	— 5.10
Dimethylaniline	lb.	.65	— .67
Dinitrobenzol	lb.	.34¾	— .36
m-Dinitrobenzene	lb.	.45	— .50
Dinitrochlorobenzene	lb.	.50	— .56
Dinitrochlorobenzol	lb.	.38	— .40
Dinitronaphthalene	lb.	.44	— .75
Dinitrophenol	lb.	.32	— .36
*Dinitrotoluol	lb.	.39	— .60
Diphenylamine	lb.	.90	— 1.05
Dioxynaphthalene	lb.	—	—
Hydrazobenzene	lb.	1.50	— 2.00
Induline	lb.	2.00	— 2.25
Methylantraquinone	lb.	—	—
Monoethylnitrochlorobenzol	lb.	.48	— .52
Monoethylaniline	lb.	1.00	— 1.25
Naphthalene, flake	lb.	.10¾	— .11
Balls	lb.	.12¾	— .13¾
Naphthalenediamine			
a-Naphthol	lb.	1.65	— 1.75
Naphthol, Technical	lb.	.65	— .70
Sublimed	lb.	.85	— .90
a-Naphthylamine	lb.	.58	— .62
b-Naphthylamine	lb.	1.65	— 1.75
p-Nitraniline	lb.	1.25	— 1.30
Nitrobenzene	lb.	.20	— .22
e-Nitrochlorobenzol	lb.	.50	— .56
Nitronaphthalene	lb.	.44	— .65
p-Nitrophenol	lb.	1.80	— 2.00
p-Nitrotoluol	lb.	1.45	— 1.75
Nitrotoluol	lb.	.55	— .65
o-Nitrotoluol	lb.	.75	— .80
m-Phenylenediamine	lb.	1.15	— 1.25
Phenol	lb.	.51½	— .52¾
p-Phenylenediamine	lb.	3.50	— 4.00
Phthalic Anhydride	lb.	3.75	— 4.25
Pseudo-Cumol	lb.	—	—
Resorcin, crystals, U.S.P.	lb.	9.50	— 10.00
Resorcin, Technical	lb.	6.50	— 6.25
Tetranitromethylaniline	lb.	—	—
Tolidin	lb.	2.50	— 2.80
o-Tolidine	lb.	1.25	— 1.30
p-Tolidine	lb.	1.25	— 1.30
*Toluol, pure	gal.	5.65	— 5.90
*Toluol, Commercial, 90 p.c. gal.	5.85	— 6.10	
m-Toluylenediamine	lb.	1.70	— 1.75
Xylene, pure	gal.	1.00	— 1.25
Xylene, Com.	gal.	.35	— .40
Xylol	gal.	.35	— .50

COAL-TAR COLORS

Acid Blue	lb.	1.30	— 1.50
Acid Black	lb.	2.00	— 2.60
Acid Brown	lb.	2.25	— 3.00
Acid Fuchsin	lb.	6.25	— 7.50
Acid Orange	lb.	.30	— .50
Acid Orange II	lb.	.60	— .75
Acid Orange III	lb.	1.00	— 1.25

*Nominal.

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Acid Red	lb.	1.50	— 1.80
Acid Scarlet	lb.	.90	— 1.20
Alpine Yellow	lb.	4.50	— 5.00
Alizarin Blue, Domestic	lb.	7.25	— 8.50
Alizarin Blue, bright	lb.	7.75	— 9.25
Alizarin Blue, medium	lb.	6.00	— 7.50
*Alizarin Brown, conc.	lb.	7.50	— 8.50
Alizarin Orange	lb.	6.30	— 8.00
Alkali Blue, Domestic	lb.	7.50	— 13.00
Alkali Blue, Imported	lb.	13.00	— 15.00
Azo Carmine	lb.	6.50	— 8.00
Azo Rellow	lb.	1.90	— 4.00
Azo Yellow, green shade.	lb.	3.50	— 4.50
Auramine, Single O, Dom.	lb.	3.25	— 4.50
Auramine, Double O, Dom.	lb.	5.25	— 6.00
Bismarck Brown Y	lb.	.90	— 1.05
Bismarck Brown R	lb.	1.25	— 1.40
Bright Red	lb.	2.75	— 3.25
Chrome Blue	lb.	2.00	— 2.50
Chrome Green, Dom.	lb.	2.50	— 2.75
Chrome Red	lb.	2.25	— 3.00
Chrysoidine R	lb.	1.00	— 1.50
Chrysoidine Y	lb.	.85	— 1.20
Chrysophine, Domestic	lb.	6.25	— 7.50
Chrysophine, Imported	lb.	11.00	— 12.50
Congo Red	lb.	2.00	— 2.25
Crystal Violet	lb.	6.50	— 7.50
Diamine Sky Blue F. F.	lb.	12.00	— 14.00
Direct Black	lb.	.80	— .90
Direct Blue	lb.	2.25	— 3.00
Direct Sky Blue	lb.	2.50	— 6.00
Direct Brown	lb.	2.00	— 2.50
Direct Bordeaux	lb.	2.85	— 3.45
Direct Fast Red	lb.	3.25	— 5.25
Direct Yellow	lb.	1.75	— 2.25
Direct Fast Yellow	lb.	2.20	— 3.25
Direct Violet	lb.	2.50	— 3.25
Fast Red, 6B extra, con't.	lb.	1.60	— 5.00
Fur Black, extra	lb.	2.40	— 3.10
Fur Brown B	lb.	2.00	— 3.10
Fuchsine Crystals, Dom.	lb.	7.50	— 11.00
Fuchsine Crystals, Imp.	lb.	12.00	— 12.50
*Green Crystals, Brilliant	lb.	11.50	— 13.00
Indigo 20 p.c. paste	lb.	1.50	— 2.00
Indigotine, conc.	lb.	4.25	— 5.00
Indigotine, paste	lb.	1.50	— 2.50
Induline	lb.	1.15	— 1.70
Magenta Acid, Domestic	lb.	4.25	— 5.00
Magenta, Imported	lb.	10.00	— 11.00
Metanil Yellow	lb.	2.00	— 2.25
Medium Green	lb.	5.00	— 6.00
Methylene Blue, tech.	lb.	3.00	— 3.50
Methyl Violet	lb.	3.00	— 3.50
Naphthol Green	lb.	2.50	— 2.75
Nigrosine, Oil Sol.	lb.	.85	— 1.00
Nigrosine, sps. sol.	lb.	.75	— 1.25
Nigrosine water sol., blue.	lb.	.75	— 1.05
Jet	lb.	.80	— 1.00
*Naphthylamine Red	lb.	6.40	— 7.10
Oil Black	lb.	.85	— 1.20
Oil Orange	lb.	2.00	— 2.50
Oil Scarlet	lb.	2.00	— 2.50
Oil Yellow	lb.	1.80	— 2.50
Orange, R. G., contract	lb.	2.00	— 2.25
Orange Y, conc.	lb.	1.00	— 1.25
Ponceau	lb.	1.80	— 2.50
Rhodamine B, ex. cont.	lb.	54.00	— 56.00
Scarlet 2R	lb.	3.25	— 4.50
Sulphur Blue, Dom.	lb.	2.50	— 2.75
Soluble Blue, Imp.	lb.	13.00	— 15.00
Sulphur Black	lb.	.40	— .60
Sulphur Black E.S. standard lb.	.90	— 1.00	
Sulphur Black 100 p.c.	lb.	1.25	— 2.00
Sulphur Black, 150 p.c.	lb.	1.50	— 2.25

*Nominal.

Sulphur Blue, Dom.	lb.	2.60	— 3.00
Sulphur Blue-Black	lb.	3.25	— 3.75
Sulphur Brown	lb.	.12	— .50
Sulphur Green	lb.	1.75	— 2.50
Sulphur Yellow	lb.	1.50	— 2.00
Tartrazine, Domestic	lb.	1.30	— 1.85
Tartrazine, Imported	lb.	.65	— .90
Wool Green, S. Swiss	lb.	7.00	— 7.25
Valonia, solid, 65 p.c. tan	lb.	5.00	— 6.00
Victoria Blue, base, Dom.	lb.	10.50	— 11.00
Victoria Green	lb.	7.50	— 10.00
Victoria Red	lb.	8.00	— 9.00
Victoria Yellow	lb.	6.50	— 8.00
Yellow for wool	lb.	1.50	— 2.25

NATURAL DYESTUFFS

Annatto, fine	lb.	.33¾	— .35
Seed	lb.	.11¾	— .12¾
Carmine No. 40	lb.	4.25	— 4.75
Cochineal	lb.	.55	— .60
Gambier, see tanning.			
Indigo, Bengal	lb.	2.50	— 3.00
Oudes	lb.	2.75	— 2.95
Guatemala	lb.	2.25	— 2.75
Kurpahs	lb.	2.75	— 3.00
Madras	lb.	1.10	— 1.40
Madder, Dutch	lb.	.27	— .30
Natgalls, blue Aleppo	lb.	1.50	— 1.75
Chinese	lb.	.25	— .26
Persian Berries	lb.	—	—
Quercitron Bark, see tanning.			
Sumac, see tanning.			
China	lb.	.09	— .10½
Turmeric, Madras	lb.	.10½	— .11½
Aleppu	lb.	.15¾	— .16½
Pubna	lb.	.09½	— .10½

DYEWOODS

Barwood	lb.	—	—
Camwood, chips	lb.	.17	— .20
Fustic, sticks	lb.	39.00	— 60.00
Hypericic, chips	lb.	.09	— .10
Logwood Sticks	ton	36.50	— 39.50
Chips	lb.	.02½	— .04½
Quercitron, see tanning			
Red Saunders, chips	lb.	.15	— .17

EXTRACTS

Archil, double	lb.	.15	— .17
Triple	lb.	.18	— .20
Concentrated	lb.	.21	— .26
Cutch, Mangrove, see tanning.			
Rangoon, boxes	lb.	.19¼	— .20
Liquid	lb.	.13¾	— .14¾
Tablet	lb.	.11¾	— .13¾
Cudbear, French	lb.	—	—
English	lb.	.20	— .26
Concentrated	lb.	.38	— .40
Flavine	lb.	1.00	— 1.50
Fustic, Solid	lb.	.24¾	— .25¾
Liquid, 51 deg.	lb.	.11½	— .13½
Gall	lb.	—	—
Hematin Extract	lb.	.14	— .18
Crystals	lb.	.24	— .28
*Hypericic, liquid	lb.	—	—
Indigo, natural for cotton.	lb.	.50	— .54
For wool	lb.	.30	— .32
Indigotine, 100 p.c. pure	lb.	—	—
Logwood, solid	lb.	.19	— .25
Crystals	lb.	.20½	— .26
5 deg. Twaddle	lb.	.10¼	— .11¼
Contract	lb.	.11½	— .12½
Osage Orange	lb.	—	—
Powdered	lb.	—	—
Paste	lb.	.06	— .12
Persian Berries	lb.	—	—
Quebracho, see tanning.			
Quercitron	lb.	.07	— .07¼
Sumac, see tanning.			

MISCELLANEOUS DYESTUFFS

Albumen, Egg	lb.	1.05	— 1.10
Blood, imported	lb.	.85	— .90
Domestic	lb.	.55	— .60
Prussian Blue	lb.	.80	— .90
Soluble	lb.	.95	— 1.00
Turkey Red Oil	lb.	.14	— .16
Zinc Dust, prime heavy.	lb.	.15½	— .16¼

RAW TANNING MATERIALS

Algarobilla	ton	140.00	— 150.00
Divi Divi	ton	68.00	— 74.00
Hemlock Bark	ton	15.00	— 16.00
Mangrove, African, 38 p.c.	ton	60.00	— 62.00
Bark, S. A.	ton	45.00	— 50.00
*Myrobalans	ton	63.50	— 65.00
Oak Bark	ton	15.00	— 16.00
Ground	ton	—	—
Quercitron Bark No. 1	ton	28.00	— 31.00
No. 2	ton	20.00	— 25.00
Sumac, Sicily, 27 p.c. tan.	ton	95.00	— 98.00
Virginia, 25 p.c. tan.	ton	57.50	— 59.50
Valonia Cups	ton	—	—
Beard	ton	—	—
Wattle Bark	ton	62.00	— 64.00

*Nominal.

Drugs & Chemicals, Heavy Chemicals and Dyestuffs in Original Packages

TANNING EXTRACTS

Chestnut, ordinary, 25 p.c. tan, bbls.	.0294	.03
Clarified, 25 p.c. tan, bbls. lb.	.03	.0334
Crystals, ordinary, lb.	—	—
Clarified, lb.	—	—
Gambier, 25 p.c. tan, lb.	.09%	.11
Common, lb.	.25%	.2634
Cubes, No. 1, lb.	.24%	.25
No. 2, lb.	.21	.2134
Hemlock, 25 p.c. tan, lb.	.03%	.0334
Larch, 25 p.c. tan, lb.	.03	.0334
Crystals, 50 p.c. tan, lb.	.06	.07
Mangrove, 55 p.c. tan, lb.	.08	.12
Liquid, 25 p.c. tan, lb.	.06	.08
Muskegon, 23-30 p.c. tan, 50 p.c. total solids, lb.	.01%	.02%
Myrobalsans, liq., 23-25 p.c. tan, lb.	.06	.07
Solid, 50 p.c. tan, lb.	.10	.11
Oak Bark, liquid, 23-25 p.c. tan, lb.	.03%	.04%
Quebracho, liquid, 35 p.c. tan, treated, lb.	.05%	.0634
35 p.c. tan, untreated, lb.	—	—
35 p.c. tan, bleaching, lb.	.07%	.08
Solid, 65 p.c. tan, ordinary, lb.	.11%	.14%
Clarified, lb.	.10	.12
Spruce, liquid, 20 p.c. tan, 50 p.c. total solids, lb.	.01	.01%
Sumac, liquid, 25 p.c. tan, lb.	.07	.10%
Valonia, solid, 65 p.c. tan, lb.	Nominal	—

Oils

ANIMAL AND FISH

(Carloads)

Cod Newfoundland, gal.	1.27	1.29
*Domestic, prime	—	—
Liver, Newfoundland, bbl.	95.00	96.40
Norwegian, bbl.	140.00	145.00
*Degras, American, lb.	.25	.27
*English, lb.	.26	.28
German, lb.	—	—
Neutral, lb.	—	—
Horse, lb.	.17	.18
Lard, prime winter, gal.	2.30	2.35
Off prime, gal.	1.85	1.90
Extra, No. 1, gal.	1.50	1.55
No. 1, gal.	1.45	1.50
No. 2, gal.	1.40	1.45
Menhaden, Light, strained, gal.	1.18	1.20
Yellow, bleached, gal.	1.20	1.22
White, bleached, winter, gal.	1.22	1.24
*Northern, crude, gal.	—	—
*Southern, crude, f.o.b. plant, gal.	1.00	1.05
Neatsfoot, 20 deg., gal.	—	3.25
30 deg., cold test, gal.	—	3.00
40 deg., cold test, gal.	2.95	3.00
Dark, gal.	1.75	1.80
Prime, gal.	2.00	2.25
Oleo Oil, lb.	.22	.24
*Porpoise, body, gal.	.80	.85
*Jaw, gal.	24.00	25.00
Red (Crude Oleic Acid), lb.	.17	.17%
Saponified, lb.	.17	.17%
Sod Oil, lb.	.11	.12
Sperm bleached winter, 45 deg., cold test, gal.	—	2.25
Natural winter, 38 deg., cold test, gal.	2.20	2.25
Stearic, single pressed, lb.	.23	.24
Double pressed, lb.	.24	.25
Triple pressed, lb.	.27	.28
Tallow, acidless, gal.	1.60	1.65
*Prime, gal.	1.55	1.60
*Whole, natural, gal.	1.20	1.25
*Bleached, winter, gal.	1.30	1.35

VEGETABLE OILS

Almond, sweet, lb.	1.25	1.35
*Castor, No. 1 bbls.	.32	.40
*Cases, lb.	.34	.42
No. 3, lb.	.30	.33
Cocanut, Ceylon, bbls.	.18	.18%
*Ceylon, Tanks, lb.	.17	.17%
Cochin, bbls.	.19%	.19%
Tanks, lb.	.18%	.18%
*Corn, refined, bbls.	20.72	20.92
*Crude, bbls.	.16%	.17
*Cottonseed, Crude, f. o. b. mills, in tanks, lb.	.20%	.21
*Summer, yellow, prime, lb.	.20%	.21%
*White, lb.	—	—
*Winter, yellow, lb.	—	.22%
Linseed, raw, car lots, gal.	1.55	1.57
5-bbl. lots, gal.	1.56	1.58
Boiled, 5-bbl. lots, gal.	1.57	1.59
Double Boiled, 5-bbl. lots, gal.	1.58	1.60
*Olive, denatured, gal.	3.75	4.00
*Feet, lb.	—	.45
*Nominal, lb.	—	—

WHERE TO BUY

Chas. Morningstar & Co., Inc.

WOOLWORTH BLDG. - BARCLAY-6005-6

STARCHES
DEXTRINES
ALBUMEN
GLUCOSE

*Palm Lagos, casks, lb.	.39	.40
*Benin, lb.	.30	.31
*Niger, lb.	.29	.30
*Palm Kernel, domestic, lb.	—	—
*Imported, lb.	—	—
Peach Kernel, lb.	.35	.40
Peanut Oil, edible, gal.	1.70	1.75
*Crude f. o. b. mills, gal.	1.36	1.40
Pine Oil, white steam, gal.	—	—
Yellow, steam, gal.	.54	.55
*Poppy Seed, gal.	—	—
*Rapeseed, ref'd. bbls., gal.	1.75	1.80
Blown, gal.	1.85	2.00
Rosin, oil, first rect., gal.	.35	.40
Second, gal.	.42	.45
*Sesame, domestic, gal.	—	—
*Imported, lb.	—	—
*Soya Bean, Manchurian, lb.	.19	.21
Tar Oil, gen. dist., lb.	.33	.34
Commercial, lb.	.25	.27

MINERAL

Black, reduced, 29 gravity, 25-30 cold test, gal.	.21	.22
29 gravity, 15 cold test, gal.	.21	.22
Summer, gal.	.21	.22
Cylinder, light, filtered, gal.	.36	.38
Dark, filtered, gal.	.35	.36
Extra cold test, gal.	.50	.55
Dark steam, refined, gal.	.25	.27
Neutral, W. Va. 29 grav, gal.	.36	.37
Neutral, filtered lemon 33@34 gravity, gal.	.31%	.32
White 30@31 gravity, gal.	.44	.45
Paraffin, high viscosity, gal.	.40	.41
903@865 sp gr., gal.	.36	.38
Red Paraffin, gal.	.36	.38
Spindle, filtered, gal.	.40	.47
No. 200, gal.	.36	.37
No. 100, gal.	.35	.36
No. 110, gal.	.33	.34

Miscellaneous

NAVAL STORES

(Carloads ex-dock)

Spirits Turpentine in bbls., gal.	.49	.49%
Wood Turpentine, steam distilled, bbls., gal.	—	.45
Turpentine, Destructive distilled, bbls., lb.	—	.42
Pitch, prime, 200-lb. bbl.	400	4.25
Tar, kiln-burnt, pure 50-gal bbls.	12.50	13.75
Rosin, com., to g'd 80-bbl.	7.20	7.25

SHELLAC

D. C., lb.	.78	.80
Diamond "I", lb.	.78	.80
V. S. O., lb.	.78	.79
Fine Orange, lb.	.69	.73
Second Orange, lb.	.63	.68
T. N., lb.	.62	.63
A. C. Garnet, lb.	.62	.63
Button, lb.	—	—
Regular, bleached, lb.	.59	.60
Bone, dry, lb.	.69	.70

OIL CAKE AND MEAL

Cottonseed Cake, f.o.b. Texas, f. o. b. New Orleans, lb.	—	53.50
Cottonseed, Meal, f.o.b. Atlanta, lb.	—	47.50
New Orleans, lb.	47.00	49.00
Corn Cake, short ton	37.00	40.00
Meal, short ton	41.00	42.00
Linseed cake, dom., short ton	—	52.00
Linseed Meal, short ton	55.00	56.00

COCOA

Bahia, lb.	.13%	.14%
Caracas, lb.	.13%	.14
Hayti, lb.	.11%	.12
Maracaibo, lb.	.22	.24%
Trinidad, lb.	.13%	.14

DEXTRINES AND STARCHES

British Gum, Globe per 100 lbs.	—	6.59
Dextrine, Corn, white or yellow, lb.	.07	.08
Potato, white or canary, lb.	.17	.18
*Nominal, lb.	—	—

Starch Corn, lb.	.07	.07%
Pearl, Globe, lb.	.06	.06%
Potato, Domestic, lb.	.13%	.14
Imported, duty paid, lb.	.14	.15

REFINED SUGAR

(Prices in Barrels)

Ar. Fed. War, Amer. Nat. bu'le eral ner	—	—
Powdered, lb.	7.60	7.60
XXXX, lb.	7.65	7.65
Confectioners A, lb.	7.35	7.35
Standard Gran., lb.	7.50	7.50

* Prices fixed by Government.

Soap Makers' Materials

ANIMAL AND FISH OILS

*Menhaden, crude, f.o.b. mills, gal.	1.00	1.05
Light, strained, gal.	1.18	1.20
Yellow, bleached, gal.	1.20	1.22
White, bleached, winter, gal.	1.22	1.24
Neatsfoot, 20 deg., gal.	—	3.25
30 deg., cold test, gal.	—	3.00
40 deg., cold test, gal.	2.95	3.00
Dark, gal.	1.75	1.80
Prime, lb.	.17	.17%
Red, (Crude oleic acid), lb.	.17	.17%
Saponified, lb.	.23	.24
Stearic, single pressed, lb.	.23	.24
Double pressed, lb.	.24	.25

VEGETABLE OILS

*Castor, No. 1, bbls., lb.	.32	.40
*No. 3, lb.	.30	.33
Cocanut, Ceylon, bbls., lb.	.18	.18%
*Ceylon, tanks, lb.	.17	.17%
Cochin bbls., lb.	.19%	.19%
Tanks, lb.	.18%	.18%
*Corn, crude, bbls., lb.	.16%	.17%
Refined, barrels, f. o. b. mills, in tanks, lb.	.17%	.18
*Summer Yellow, prime, lb.	.20%	.21
*White, gal.	—	—
*Winter, Yellow, gal.	—	.22%
Linseed, raw, car lots, gal.	1.55	1.57
5 barrel lots, gal.	1.56	1.58
*Olive, denatured, gal.	3.75	4.00
*Feet, lb.	.39	.40
*Palm Lagos, casks, lb.	.29	.30
*Niger, lb.	—	—
*Palm Kernel, domestic, lb.	—	—
Peanut, edible, gal.	1.70	1.75
*Crude f. o. b. mills, gal.	1.36	1.40
Pine, white steam, gal.	—	—
*Sesame, domestic, lb.	—	—
Soya Bean, Manchurian, lb.	.19	.19%

GREASES, LARDS, TALLOW

(New York Markets)

Grease, white, lb.	.17	.17%
Yellow, lb.	.15%	.16%
Houze, lb.	.15%	.16%
Brown, lb.	.15	.15
Yellow, grease, stearine, lb.	.16%	.17
White, grease, stearine, lb.	.17%	.18
Lard, City, lb.	.25	.25%
Compound, lb.	.22%	.23%
Stearine, lard, lb.	.28	.29
Oleo, lb.	.18%	.19
Tallow, edible, lb.	.18%	.18%
Lard, City, lb.	.17	.17%
Choice County, lb.	.17%	.18

(Western Markets)

Tallow, edible, lb.	.17%	.18
City Fancy, lb.	—	.17%
Prime Packers, lb.	.17%	.17%
Grease, Choice White, lb.	.16%	.17
"A" White, lb.	.16%	.16%
"B" White, lb.	.16%	.16%
Yellow, lb.	.15%	.16
Brown, lb.	.12	.13%
Bone, lb.	.15%	.15%
House, lb.	.15%	.15%
Stearine, prime oleo, lb.	.19	.19%
Lard, lb.	.27%	.27%
*Nominal, lb.	—	—

*Buyers' Tanks, Sodium Nitrite, lb.	.41%	.43%
Prussiate, Yellow, lb.	.51	.52
Silicate, 60 p.c., 100 lbs.	4.25	5.00
Silicate, 40 p.c., 100 lbs.	2.25	2.75
Sulph., Glauber's salt 100 lbs.	1.40	1.70
Sulphide 60-62 p.c. cryst., lb.	.06	.06%
60 p.c., per 100 lbs.	4.25	4.50
Sulphur (crude) f.o.b. N.Y. ton	45.00	50.00
f. o. b. Baltimore, ton	45.00	50.00
Sulphuric Acid, 60 deg. Pyrite, ton	45.00	50.00
66 deg. Brimstone, ton	35.00	40.00
Oleum, ton	65.00	70.00
Battery Acid, car's per 100 lbs.	3.00	3.40
*Nominal, lb.	—	—

Imports and Exports of Drugs and Chemicals, Dyestuffs, Etc.

Imports from May 4 to May 11.—Exports for month of March.

Owing to the strict regulations of the Treasury Department forbidding the publication of the names of importers receiving consignments and the names of ports of shipment, this feature of the service is omitted by DRUG AND CHEMICAL MARKETS during the period of the war. Subscribers interested in any special product will be assisted in locating supplies if they will communicate with the Editor.

Imports

ACID— 14,000 pounds oxalic	9,000 pounds eucalyptus 130 pounds coltsfoot 3,400 pounds althea
BALSAM— 700 pounds copaiba	LEECHES— 200 pounds bloodsuckers
BARK— 5,679 pounds cinchona	LIME CITRATE— 1,238 pounds
BEANS— 1,288 pounds vanilla 18,500 pounds vanilla 17,500 pounds vanilla 3,000 pounds tonka	LIME TARTRATE— 18,200 pounds 134,750 pounds
CHEMICAL PREPS.— 1,250 pounds 250 pounds	MEDICINE & MISCELLANEOUS DRUG PREPS.— 300 pounds drugs 150 pounds medicine 2,000 pounds medicine
COPRA— 160,000 pounds 446,000 pounds 284,000 pounds 226,500 pounds 156,500 pounds 118,000 pounds 165,000 pounds 56,000 pounds	POTASSIUM CARBONATE— 17,720 pounds 80,000 pounds 49,000 pounds
DYES & DYESTUFFS— 40,000 pounds gambier 9,000 pounds indigo	POTASS. PERMANGANATE— 5,000 pounds
ESSENTIAL OILS— 1,900 pounds 1,500 pounds 2,100 pounds 5,800 pounds	OILS— 10,000 gallons Chinese nut 168,750 gallons coconut 12,920 pounds fusel 85,950 pounds distilled lemon 24,000 pounds citronella 30,000 pounds coconut 1,110 tons coconut (in bulk) 11,000 pounds coconut 2,500 gallons peanut
FLOWERS— 700 pounds saffron 200 pounds saffron 50 pounds chamomile 120 pounds violet.	QUEBRACHO— 5,000,000 pounds
GALL NUTS— 10,400 pounds 400 pounds	QUININE SULPHATE— 3,900 ounces
GELATIN— 350 pounds	ROOTS— 288 pounds ginger 130 pounds ginger 15,000 pounds gentian 300 pounds licorice 13,650 pounds various 11,500 pounds orris
GLYCERIN, CRUDE— 28,433 pounds	SANDALWOOD— 34,000 pounds
GLYCERIN REFINED— 880 pounds	SEED— 6,000 pounds anise 3,000 pounds cardamom 6,500 pounds caraway
GUM— 33,212 pounds chicle	SPICES— 22,920 pounds cassia 46,500 pounds cloves 13,000 pounds nutmegs 3,000 pounds nutmegs 9,300 pounds nutmegs 39,000 pounds pepper 36,140 pounds pepper
HERBS— 3,000 pounds various	TALC. PREPARED— 320,250 pounds
IODINE, CRUDE— 25,441 pounds	TARTAR CRUDE— 247,600 pounds
LACTARINE— 90,390 pounds	WAX— 9,000 pounds bees WINE LEES— 696,342 pounds
LEAVES— 9,000 pounds sage 1,300 pounds peppermint 350 pounds malva 29,000 pounds laurel	

Exports

ACID, CARBOLIC— 155 pounds, Colombia 130 pounds, Peru 160 pounds, Uruguay 310 pounds, Venezuela 300 pounds, British India 992 pounds, Mexico 385 pounds, Argentina	LIME CHLORIDE— 94,661 pounds, Argentina 237,208 pounds, Brazil 45,050 pounds, Cuba 8,427 pounds, Cuba 385 pounds, Nicaragua
ACID, NITRIC— 1,490 pounds, Chile 3,150 pounds, Colombia 440 pounds, Venezuela 992 pounds, Mexico	MERCURY— 4,300 pounds, Br. South Africa
ACID, SULPHURIC— 39,120 pounds, Dutch W. Ind. 570 pounds, San Domingo 2,205 pounds, Argentina 9,217 pounds, Brazil 67,344 pounds, Chile 188,662 pounds, Mexico 23,915 pounds, Jamaica 130,720 pounds, Cuba 78,400 pounds, Dutch W. Ind. 282,587 pounds, Brazil 105,493 pounds, Brit. Guiana	PARAFFIN, CRUDE— 134,400 pounds, Chile PARAFFIN, REFINED— 78,200 pounds, Guatemala 84,600 pounds, Mexico 126,700 pounds, Cuba 13,970 pounds, Brazil 630,255 pounds, Chile 458,010 pounds, Peru 42,000 pounds, Uruguay 334,832 pounds, Venezuela 2,907,950 pounds, China 60,750 pounds, Australia
ALCOHOL— 233 gallons, Mexico 10 gallons, Colombia 20 gallons, Portugal	PEPPERMINT OIL— 50 pounds, Jamaica 418 pounds, Argentina
ALCOHOL, WOOD— 19,100 gallons, England	POTASSIUM CHLORATE— 22,400 pounds, Uruguay 2,240 pounds, British Indies
BEANS— 444 pounds vanilla, Argentina	SODA, ASH— 791,367 pounds, Brazil 424,188 pounds, Chile 56,786 pounds, Colombia 56,000 pounds, Ecuador 9,273 pounds, Panama 97,251 pounds, Mexico 512,792 pounds, Cuba
BENZOL— 2,320 pounds, Uruguay 1,448 pounds, British India	SODA, CAUSTIC— 682,047 pounds, Cuba 3,510 pounds, Virgin Islands 69,577 pounds, Argentina 10,066 pounds, Chile 11,048 pounds, Panama 101,087 pounds, Mexico
CALCIUM CARBIDE— 100,800 pounds, Uruguay 933,790 pounds, Chile 1,500 pounds, Peru 130,450 pounds, Argentina 2,000 pounds, Honduras 4,000 pounds, Nicaragua	SODA, SAL— 2,600 pounds, Hayti 8,140 pounds, Argentina 7,750 pounds, Panama 1,875 pounds, Newfoundland 18,546 pounds, Jamaica
CAMPHOR— 2,000 pounds, Norway	SODIUM SILICATE— 3,601 pounds, Peru 12,600 pounds, San Domingo
CASSIA— 415 pounds, Hayti 3,325 pounds, Venezuela	SPONGES— 593 pounds, Argentina 118 pounds, Mexico 12 pounds, Salvador 12 pounds, Jamaica 4 pounds, San Domingo 100 pounds, Guatemala 4 pounds, Bermuda 220 pounds, Iceland
COPPER SULPHATE— 960 pounds, Cuba 494,115 pounds, Argentina 4,717 pounds, Chile 39,710 pounds, Uruguay 55,102 pounds, Spain 2,400 pounds, Canada 6,000 pounds, Costa Rica	SULPHUR, CRUDE— 39 tons, Brazil 10 tons, Peru 56 tons, British South Africa 40 tons, Argentina 446 tons, Brazil 4 tons, Cuba
GLUCOSE— 36,915 pounds, Mexico 247,610 pounds, Argentina 20,158 pounds, China 117,200 pounds, British India 48,105 pounds, Spain 4,895,284 pounds, England	SUPERPHOSPHATES— 350 tons, British Guiana
GLYCERIN— 150 pounds, San Domingo 231 pounds, Brazil 923 pounds, Chile 428 pounds, Colombia 1,060 pounds, Ecuador 300 pounds, British Guiana 1,000 pounds, Uruguay 1,000 pounds, British Guiana	VEGETABLE WAX— 5,583 pounds, Argentina
	ZINC OXIDE— 45,117 pounds, Argentina 11,380 pounds, Cuba 733,850 pounds, England 241,000 pounds, France 67,200 pounds, Scotland 150 pounds, Honduras 303 pounds, Panama 300 pounds, Salvador 26,275 pounds, Mexico

HARRY DIXON WITH RALPH L. FULLER.

Harry Dixon, formerly general sales manager for Frank Hemingway, Inc., 115 Broadway, has accepted an executive position with Ralph L. Fuller, Inc., 2 Rec-tor street. Mr. Dixon assumed his new duties on Monday, May 13.

The Ault & Wiborg Company, Cincinnati, O., has filed notice of an increase in its capital from \$2,000,000 to \$10,000,000, to provide for increased capacity in the output of its coal-tar dyes.

DRUG CONTROL BILL NOW A LAW.

Governor Whitman has signed the bill to provide for the establishment of a State Department of Drug Control for the regulation of the sale of habit-forming drugs and to study the treatment of drug addicts.

The Penn Chemical Works, 1332 Washington avenue, Philadelphia, have taken out a building permit for alterations and improvements in its buildings at 1322 Washington avenue. Contract for the work has been awarded to the Austin Company, Bulletin Building, Philadelphia.

Foreign Trade Opportunities

The Department of Commerce, Washington, D. C., has received the following inquiries for drugs, chemicals and accessories. Reserved addresses may be obtained from the Bureau and its district and cooperative offices. Request for each opportunity should be on a separate sheet and state opportunity number. The Bureau does not furnish credit ratings or assume responsibility as to the standing of foreign inquirers; the usual precautions should be taken in all cases.

2886—A business man in Taiwan, Formosa, is in the market for ginseng. Payment will be made through documentary credit or other forms, subject to arrangement. Correspondence may be in English. Reference.

2890—A firm in France wishes to purchase machinery for the production of glucose from maize and manioc and for utilization of the by-product; machinery for hydrogenation, neutralization, and deodorization of oils, such as that used in the manufacture of hard soaps; machinery for the treatment of wool dust by sulphuric acid for the purpose of making fertilizer; machinery for handling, mixing, and loading wool dust; machinery for manufacturing grits from wheat and maize; machinery for decorticating beans, oats, and millet electrical motors from 5 to 100 horsepower; and steam or gas turbines of 1,000 horsepower. Reference.

2904—A French firm in England wishes to buy drugs of all kinds. It also will consider an agency proposition for the sale of same. These goods are desired for the French and Belgian markets. Correspondence may be in English. Reference.

2911—A company in England wishes to purchase all kinds and sizes of candles. Payment will be made according to agreement. Reference.

New Incorporations

Dara Aniline Colors Co., Brooklyn, N. Y., capital \$7,500. J. G. Liebert, I. P. Eisenberg, L. Miller, 1,663 Union street, Brooklyn, N. Y.

C. B. Hewitt & Bros., Manhattan, capital \$500,000. Paper boards, gelatin and glue. A. S. Wright, G. F. and G. F. Hewitt, Jr., 48 Beekman street, New York City.

Applied Chemical Corp., Manhattan, capital \$100,000. T. S. Robinson, E. Renaud, A. E. Tappen, 142 East 62nd street, New York City.

Associated Chemists Brokerage Corp., Dover, Del., capital \$30,000. A. W. Britton, S. B. Howard, Paul S. Smith, all of New York City.

R. Berry Co., Buffalo, N. Y., capital \$15,000. To deal in chemicals and drugs. Frank E. Wattles, S. A. Anderson and Percy G. Lapey.

Castle Chemical and Color Co., Valley Stream, N. Y., capital \$30,000. H. B. Knapp, I. J. Hartof, E. Hunker, 374 Broadway, N. Y.

Blue Seal Chemical Co., Trenton, N. J., capital \$25,000. William A. Young, Morris Matske and Margaret Heydon, New York City.

The Em-Em Corp., Roselle Park, N. J., capital \$15,000. Alkalies, Morris Matske, Margaret Heydon, Mossis A. Young, New York City.

Jackson Fertilizer Co., Dover, Del., capital \$315,000. C. L. Rimlinger, M. M. Clancy, and F. A. Armstrong, of Wilmington, Del.

Amalgamated Bituminous Corp., Manhattan, capital \$125,000. Paints, enamels, and cements. L. A. D. and F. A. and J. A. Percival, 396 Decatur Street, Brooklyn, N. Y.

Robert Holt Chemical Co., Newark, N. J., capital \$10,000. Frank K. Roberts, Le Roy D. Roberts and Donald H. Cameron.

The Chemical Specialties Company, Oakland, Cal., capital \$40,000. To manufacture and sell chemicals and drugs. Ludwig Rosenstein, F. Rosenstein, Emil Lowenberg and O. Rosenstein, all of San Francisco, Cal.

CASTOR OIL OUTLOOK PROMISING.

The Government is pushing plans for crushing castor beans in the South so as to have a steady return in oil for use on aeroplanes. More than 110,000 acres have been planted. The Department of Justice has agents in the field to prevent German plots to scatter blight in the districts where the crops are now developing.

Albert R. Gillis, consulting engineer of the Solvay Process Company, Syracuse, N. Y., died at his home, 307 Emerson avenue, on May 8, aged 67 years. Mr. Gillis had been connected with the Solvay company for more than twenty-five years.

Want Ads

RATE—Our charge for these **WANT ADS** in this publication, *all classifications*, is \$1.00 an issue for 20 words or less; additional words, 5c each.

PAYMENT in all cases should accompany the order; add 10c if answers are to be forwarded.

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THE ERA KEY

TO THE

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BILL TO RESTRICT LIQUOR SHIPMENTS

Washington, May 14.—The importation, exportation and interstate shipment of intoxicating liquors or materials used in their manufacture is to be forbidden under the terms of a bill which has just been introduced into the House of Representatives by Congressman Randall, of California.

Representative Randall, in introducing his measure, declared that by reason of the existing state of war, it is essential for the national security and the common defense, and for the successful prosecution of the war by this country, as well as for the support and maintenance of the Army and Navy, that foodstuffs, fuel and transportation facilities be conserved as much as possible.

In accordance with this necessity, the importation, exportation or interstate shipment of liquor, or the materials used in its manufacture, is prohibited, except for scientific, sacramental, medicinal, mechanical or governmental purposes, and violation of the proposed law will be punishable by a fine of \$1,000, imprisonment for six months, or both, and for any subsequent offense, for imprisonment of one year.

The Gerhard Mennen Chemical Co., Central avenue, Newark, N. J., has awarded a contract for alterations and extensions to its plant to cost about \$42,000. Henry M. Doremus & Company, 36 Orange street, Newark, is the building contractor.

The contract for the proposed new addition to the plant of the Martin Dennis Company, Newark, N. J., manufacturers of tanners' chemicals, to be located on Sylvan avenue near Summer avenue, has been awarded to the Salmond Brothers Company, 526 Elm street, Arlington. The estimated cost is about \$30,424.

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